DOCUMENT RESUME

ED 025 936 EF 002 716

A Report on the Schools of Boston - 1962.
Boston Redevelopment Authority, Mass.; Harvard Univ., Cambridge, Mass.
Pub Date May 62
Note-306p.
EDRS Price MF-$1.25 HC-$15.40
Descriptors-Costs, Educational Finance, Enrollment, Enrollment Projections, *Facility Case Studies, Grade Organization *School Buildings, *School Conditions, *School Systems, *Urban Renewal

As part of its plan for urban renewal in Boston, the Redevelopment Authority initiated this study of the school buildings of the city. The study is based upon an intensive analysis of enrollment projections, the conditions of existing schools, the grade organization, and the impact of urban renewal on individual areas and on the city as a whole. Recommendations are made relative to elementary, intermediate, and high schools. Site locations, costs, and financing are also discussed. An appendix features financial data as well as the methodologies employed in population and enrollment prediction and capacity computation. (FPO)

BOSTON SCHOOLS - 1962

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A REPORT ON THE SCHOOLS OF BOSTON

MAY 1962

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This study was undertaken under a contract between the Boston Redevelopment Authority and Harvard University, and with the cooperation of the Mayor, the School Committee, and the School Buildings Commission of the City of Boston.

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Bottom: Departments of Architecture and Civil and Sanitary Engineering (Demountable School Project), Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge 39, Massachusetts

PREFACE

This school report offers recommendations for a modern school plant for the City of Boston. It is the result of a careful appraisal of the existing buildings, a projection of future public school enrollments, and a study of the fiscal implications of the recommended program for action.

Boston's last school survey was conducted in 1953. At that time major recommendations were addressed both to the closing of schools, thus reducing excess school capacity then extant, and to the building of new schools to replace old and obsolete structures. The initial recommendations which concerned abandonments were adopted almost completely, and 16 buildings were closed at once.

In the meantime the City has embarked upon an urban renewal program directed toward rebuilding the community, arresting blight and decay, and creating an urban environment where human aspirations may find their full expression. Significant population changes since 1953 also require a fresh examination of the schools in order to insure an efficient program of abandonment and construction.

For the study staff I wish to express our appreciation to the School Committee for cooperating with the study, and particularly to Dr. Gillis, the Board of Superintendents, and the members of the central administration staff, the principals, teachers, and custodians of the Boston schools for their unfailing cooperation. The members of the School Building Commission, Mr. McPherson, and members of his staff were similarly generous with their time and assistance. Special acknowledgment is accorded Monsignor O'Leary, Diocesan Superintendent of Schools and the members of his staff who supplied us

with data for the parochial schools. And finally to the members of the Boston Redevelopment Authority staff, and especially to Francis E. O'Brien and Raymond Rothermel, who spent many hours with us in our attempts to relate the school program to the urban renewal plans, we express our thanks.

During the latter phases of the study, the staff suffered a serious loss in the death of Robert D. Forrest. His work was of central importance, and we have missed him both professionally and personally.

This report points out the urgency of the present school building situation. The program which is recommended is but commensurate with the need for immediate improvement. It is the hope of the staff that the citizens of Boston will recognize the need for action and will proceed to meet the situations with both vision and courage.

INTRODUCTION

Boston, like almost every other older American city has a school plant which, particularly in its older neighborhoods, is over-aged, worn out, and outmoded. For too many years in the recent past Boston has built too few public schools. Now as Boston embarks on its Urban Renewal Program, it is significant that early in the development of this major and unique attempt to revitalize the City, the Redevelopment Authority should look to the schools. In so doing, they have given recognition to the significance of good schools in encouraging families to remain in the city. It is significant also that in embarking on such a key element in the renewal program, the desirability of having a comprehensive plan and program of school development was considered essential.

Boston has long cherished public education. In 1848 Horace Mann said that "in schoolhouses Massachusetts might well be called a model for the world."[1] But maintaining a leading position requires constant evaluation and re-evaluation and action for improvement. Boston cannot afford to maintain a school plant that is not in every way capable of providing a safe, healthy environment which in every way is capable of providing the best type of educational program for the children and youth of the community.

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1. Henry Barnard, School Architecture, Derby and Co., Cincinnati, Ohio, 1855, p. 76.

Perhaps there is no better way of conveying the City's intent to improve neighborhoods than to express this in terms of its concern for the children and youth of the city. The school building uniquely bespeaks this concern. Moreover, it can provide not only an attractive physical environment for children but it can also make available spaces for community programs for adults, civic organizations, and social groups. Well designed schools on adequate sites, which are centers of community activity, may go far in arresting blight and in improving neighborhoods where residents must establish new confidence in their community.

But to achieve a modern school plant requires a substantial capital expenditure. By coordinating this program with urban renewal, it is possible to effect substantial economies. Indeed, it is not too much to say that the schools of a city need urban renewal, and conversely that urban renewal needs the schools. It is therefore a happy confluence of interests that results in this major opportunity to rebuild Boston's schools in order to provide an efficient and modern school plant on an economical basis.

DIGEST

Basic to the study of the school buildings in Boston has been an intensive analysis of enrollment projections, the conditions of existing schools, the present grade organization, and the impact of urban renewal on individual areas and on the city as a whole.

Enrollments

Public school enrollments in Boston have steadily declined from a peak of 137,500 in 1933 to a recent low of 89,000. But both in 1960 and in 1961 this trend has been reversed, resulting in an increase of 1,500 pupils in the past year. This increase, because of the changing composition of the city's population, can be expected to continue, resulting in a public school enrollment of 94,000 in 1965, and 106,000 in 1970.

Buildings

This past decline in school enrollment has enabled the city to abandon some of its oldest and most obsolete schools. It has not complemented this with a vigorous program of new construction. Whereas in 1920 only 15 per cent of the pupils were housed in buildings over 50 years old, by 1960 over 34,000, or 38 per cent of all pupils, were in schools of this vintage. Boston is thus faced both with the need to abandon a substantial number of substandard buildings and simultaneously to provide space for increased enrollments.

Age is not the only, nor indeed, the most important factor which has been taken into account in the evaluation of the schools.

In reaching a judgment as to the suitability of a school, five factors were considered:

1. Educational suitability
2. Age and type of structure
3. Degree of deterioration
4. Location in relation to population patterns
5. Fire safety

By modern standards many of the older schools in Boston are crowded, ill-heated, dark, odorous, and with cramped sites, as well as below today's standards of fire safety. Programs which include kindergarten, science, industrial arts, music, and physical education, have in many instances been introduced since these schools were built. Most of them are too inflexible to adapt well to such programs. In addition, many of the schools have received insufficient maintenance or modernization.

Grade Organization

Boston presently has a mixed pattern of grade organization, including 3-year, 4-year, and 6-year high schools. It is recommended that between now and 1972, with the exception of the two 6-year Latin schools, the entire school system be organized on the basis of 4-year senior high schools, 3-year intermediate or junior high schools, and 5-year plus kindergarten elementary schools. This reorganization could substantially invigorate the senior high school program by consistently placing all the ninth grade in senior high schools, thus allowing all pupils from public and parochial schools to enter high school at the same grade. It would recognize the maturity of the ninth grade pupils and would provide continuity in guidance and elective programs coordinated with those of the last three years.

High School Recommendations

It is recommended that a city-wide campus high school, designed initially to house 3,100 pupils, be constructed in 1965. This first unit should include a new English High School of 2,000 pupils. Subsequently, this campus high school should be expanded in 1968, 1969, and 1970, to a maximum of 5,500. Its program should be comprehensive and diverse, and should include advanced academic, science, business education, music and the performing arts, general education, and work-study programs.

It is further recommended that:

The present English High School building, after renovation, become Girls' Latin;

The existing Girls' Latin be made available for Girls' Trade and the School of Business Education;

The latter two buildings be abandoned;

A new Trade School be built for 1,500 pupils in 1967;

The Cooperative Programs in the present area high schools be centralized and made a part of this vocational unit, bringing the capacity of this building to 3,000, simultaneously releasing space in the area high schools for ninth grade accommodations.

Intermediate or Junior High School Recommendations

The existing junior high buildings represent some of the newest schools in the city and all but one and parts of three others are recommended for continued use. To complete the grade reorganization and to accommodate growth, seven additional intermediate schools and ten additions are required.

Elementary School Recommendations

Between now and 1975, 71 elementary schools are recommended for abandonment. Because of the grade reorganization, these 71 schools can be replaced by only 55 new schools and 12 additions.

In the construction of both the elementary and intermediate schools, Boston has a unique opportunity to plan for more than educational centers for children. In the improvement of the social conditions of urban living upon which Boston is embarked through its dynamic urban renewal program, these schools can be made to serve other civic functions and groups. As centers for adult education, for neighborhood organizations, as civic group headquarters, and for teen-age recreation and senior citizen activities, they can help strengthen their role in the community.

Such schools must be imaginatively planned. Well designed schools and community centers are major weapons against blight and serve as focal points for rebuilding of neighborhoods. Boston has traditionally demanded the best; its schools of 1850 were of the most advanced design and construction and made of the best materials available in that age. In its new schools Boston must again demand the best and newest in design, construction, and aesthetics. Fortunately, schools so designed and constructed not only enhance their neighborhoods and are less apt to become obsolescent at an early date; they also need cost no more.

The Cost of the Schools

The total cost of the schools recommended for construction between 1964 and 1975 is $96,630,000. This cost includes planning, construction, equipment, site development, and fees. The need to abandon the poorest buildings at an early date and to provide for anticipated enrollment increases makes it impossible to phase the cost of the program on an even annual basis. The year of greatest activity, therefore, is 1965, with $21,290,000 of new construction. This includes the cost of the first unit of 3,100 pupils for the campus high school. Subsequent annual costs are all lower, dropping to $700,000 in 1974.

Financing the Program

State school building aid for the proposed construction amounts to just under $29,000,000. In addition, state urban renewal legislation makes available another $27,075,000. Together these two state aid programs reduce the net cost to the city of Boston from $96,630,000 to $40,567,000. In addition, Boston is obligated for the entire amount of interest on the outstanding balance of the debt each year.

Based on an estimated 1.5 billion dollars in assessed valuation, the tax rate impact of the debt service for this program is $.01 in 1963, increasing to $2.80 in 1972 and 1973, the peak years, and declining regularly thereafter.

School Sites

Careful consideration has been given to an economical plan of site acquisition. Wherever possible, schools should be located adjacent to Park and Recreation Department playgrounds. So planned, an estimated 292 acres of land are required. Here again the urban renewal program makes a very substantial contribution to the cost of acquiring sites for the new schools. It is estimated conservatively that at least $21,000,000 can be saved by integrating school site requirements with the urban renewal program.

Conclusion

Coupling school planning with urban renewal offers obvious financial advantages. The commitment of city funds to schools is a necessary part of rebuilding the community and expenditures for schools can represent a major part of the local contribution required to pay for the renewal projects. But it is not the fiscal incentive alone which is important, rather it is the opportunity which the city faces of making its schools a central part of its great surge forward in civic progress. Within the context of urban renewal, the schools of Boston can now embark on a new era of achievement and community support.

PART I

Chapter I

THE SCHOOLS OF BOSTON - THEN AND NOW

The city of Boston is a living example of the American schoolhouse over the past 100 years. Within its limits, Boston contains superb examples of the vast change that has transformed the schoolhouse from a place of grim confinement to a place which treats children as dignified individual human beings.

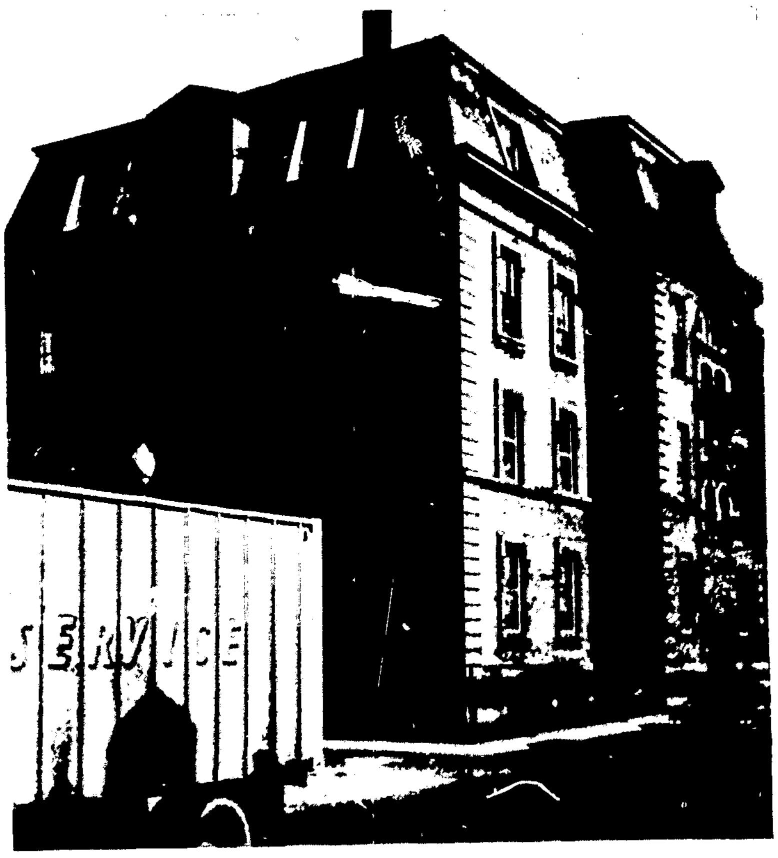
Nor are the changes that Boston illustrates mere changes in the shape of schools or the passing fancies of architectural design. The changes reflect, most importantly, the difference in our attitudes towards our children - what we consider to be a fitting environment with which our children should be surrounded for six hours each school day. And these are important changes, not only because of what they signify about the increasing quality of American life but because of the directions they indicate for the future of Boston's children and the future of Boston as a city.

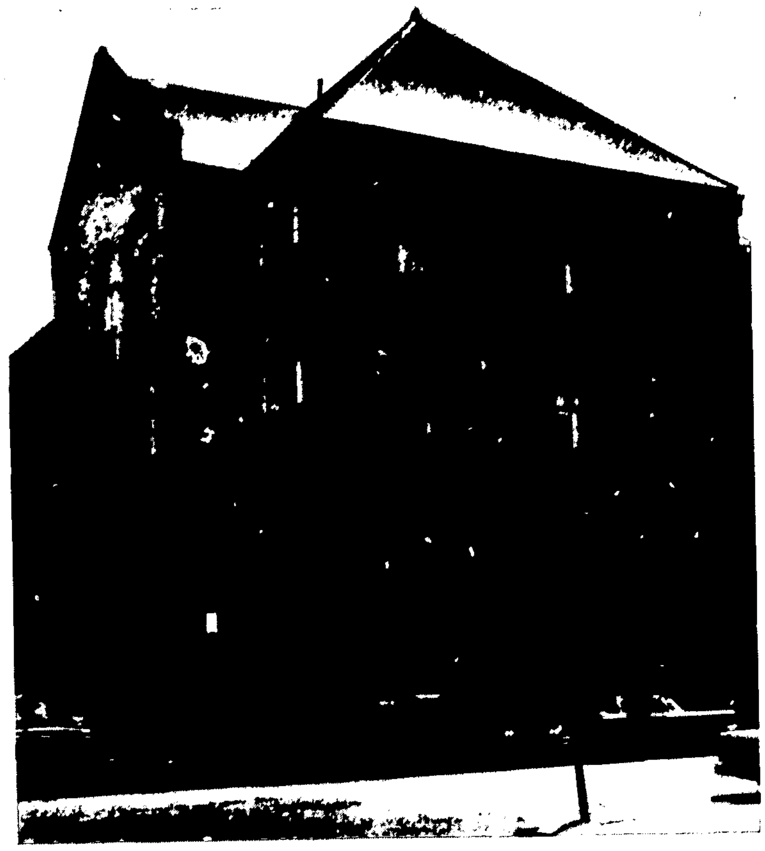
Attitudes into Buildings - the 19th Century

One of the best descriptions of the schoolhouse of the 19th century is contained in John Hersey's recent novel, "The Child Buyer":

> "The school is an old, dark, brick, two-story contraption, a Norman fortress, built as if learning and virtue needed a stronghold, a place of turrets and parapets, with narrow slits in the bricks through which scholars with crowbars peep out at an atomic world."

Here are two of Mr. Hersey's schools, built in 1867 and 1889, and still in active use in Boston.





If Boston still owns and operates these two schools (and there are roughly 60 like them in the city), Boston also owns and operates a school such as this.

Something quite drastic has happened in the years between those first two schools and this last. In the days of those first two schools, the attitude towards children and their education was characterized in general by an attitude of rigidity - the children were marched into school to be seated in rows of desks that could not be moved and which took up every inch of space in the dark and often stuffy room. They were drilled in their studies grade after grade, with little attention paid to each child as an individual human being different from all other human beings. If a child did not measure up, he failed and was held back until he somehow, if ever, came up to grade. A bright child might skip a grade or two, but that was all the variation possible for him. And the buildings expressed this attitude.

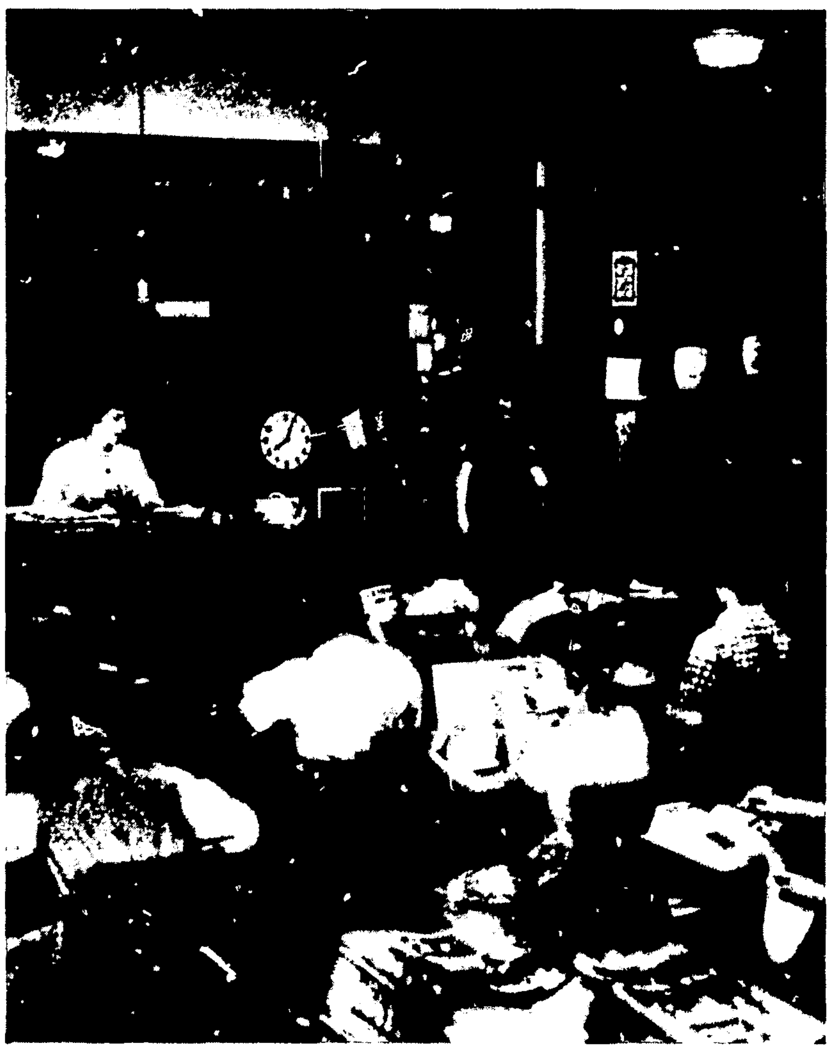
By and large, the school buildings of the period seem to us now to be crowded, cramped, ill-heated, ill-ventilated. These buildings had wooden stairs and corridors, gang toilets in the basement, and classrooms which were dark and drab except perhaps near a window. They had no playrooms inside and little playspace outside. The atmosphere inside the classrooms was in many cases stale and odorous, hardly designed to assist children in staying awake, or if a window were opened in winter to allow fresh air to enter, drafty and cold.

To some extent these conditions can be explained in the setting of the 1850's. Many other public buildings were little better. But the schoolhouses of the period still expressed an attitude, and it was essentially the attitude that children were of no special concern, that they certainly did not merit a habitation in any way superior to any other.

But if such were the conditions in the 19th century, there is little excuse for maintaining these conditions into the present day. Few Boston citizens would tolerate such antiquated conditions in their homes, offices, factories, or restaurants - unless forced to do so.

Yet many of these conditions still exist in the schools of Boston.

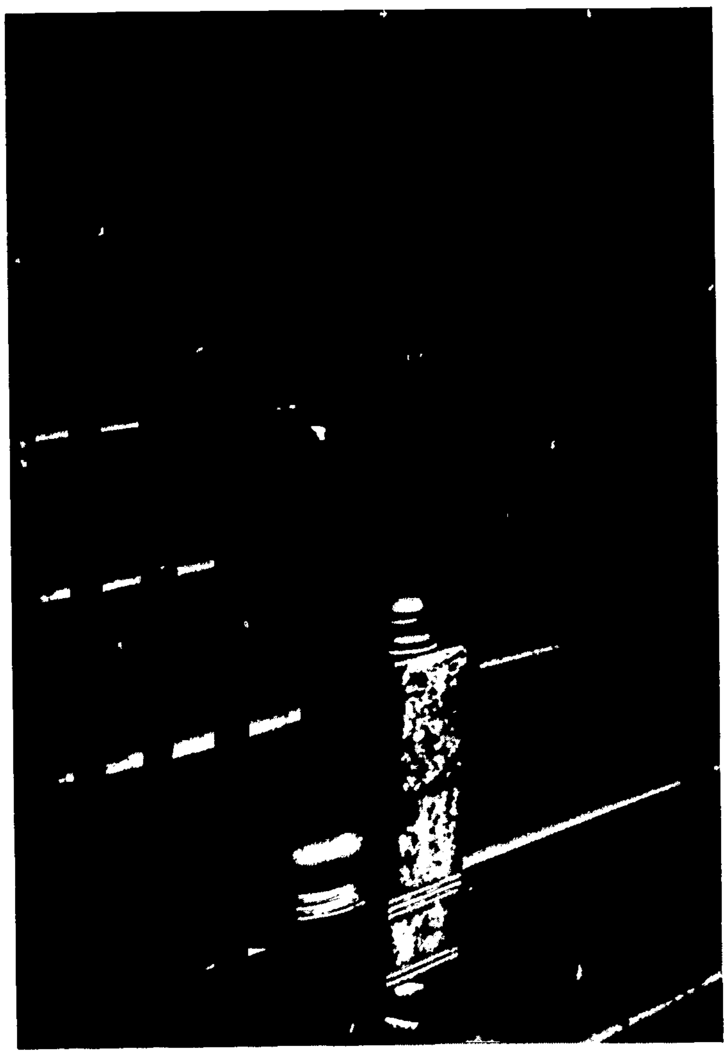
Take classrooms, for instance. Here is a typical classroom in one of Boston's older schools, a classroom that still has rigid rows of desks screwed to the floor.



Or take this one, a class being held in a room that was once an auditorium.

Most of the schools of this ancient vintage, despite the addition of electric lights, still feature the dark, dingy wooden corridors of the past.

In many of these older schools, the stairways are narrow, poorly lit, and made of wood.



In some cases, the stairs are worn and the paint is chipped.

In other cases, the wooden stairs are supported by a metal brace.

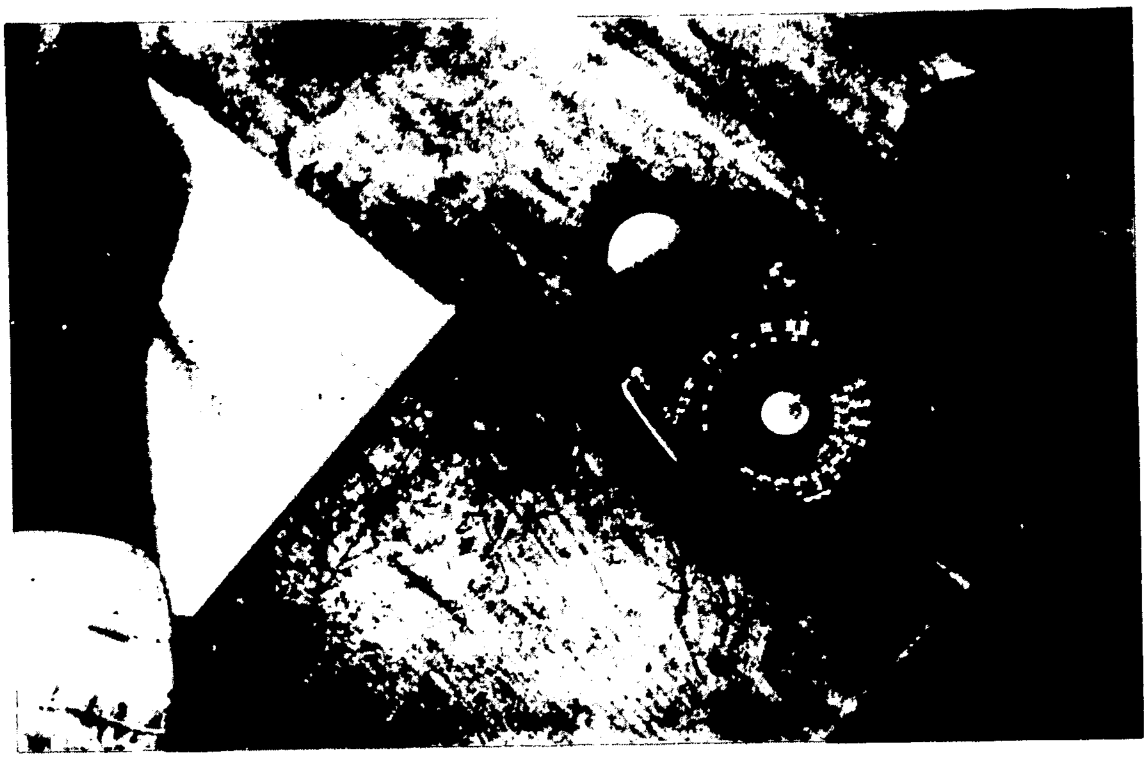
In many of the older Boston schools, the urinals are open.

In some cases, the heating equipment is by contemporary standards crude at best. Many of the furnaces are still hand-fired with coal.

There are some older schools that provide no hot water. Here is the heater for a school with 200 children in it.

Perhaps the one factor in schools that has changed most impressively over the years is the standard of lighting provided. In older days, five footcandles at the student's desk was considered adequate. In 1952, the Illuminating Engineering Society recommended 30 footcandles and recent recommendations have run as high as 70 footcandles for the more intricate desk work.

Here, a light meter placed on a student's desk in a typical older classroom on a sunny day reads 12 footcandles.



These, then, are a few of the older schools still in use in Boston and the school building standards they still express.

The Standards Change

Since these schools were built (and remember these schools are not in their original condition but have been improved and "modernized" over the years), our standards have changed enormously. And by a change in standards we mean little more than a change in our basic attitudes about what we consider an acceptable habitation for human beings, and children in particular.

The first major changes in the schools built in the middle 1800's came about, as most changes in school buildings do, from a change in the school program. The first public kindergarten was opened in St. Louis in 1873. Besides adding a grade to school at the lower end, kindergarten added, too, the notion that children, especially young children, should not be confined in rows of desks all day but should be allowed to move about, to play and build together, to dance, sing, and draw. The idea was introduced as well that children should be surrounded by light, air, and color, that this kind of freer, warmer environment had some effect on their performance in school and their development as people. And these ideas forced a change in the physical facilities provided - at least for kindergarten children. Furniture became moveable, wide windows appeared in kindergarten rooms. Sinks, storage space, easels for art work, bright paint on the walls began to appear.

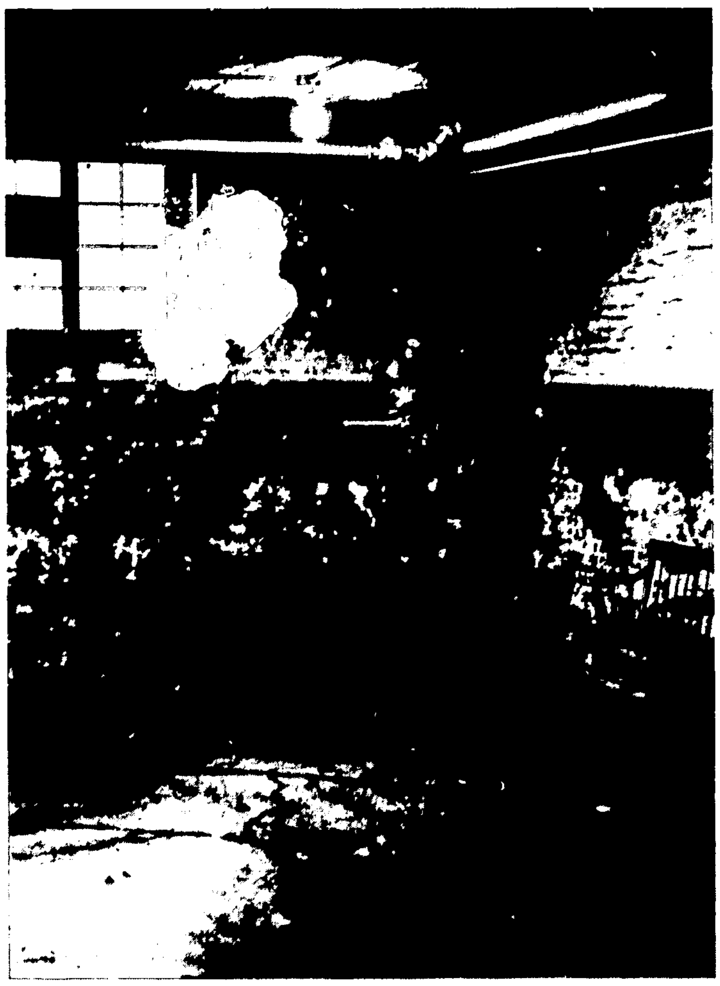
Shop or manual training programs were introduced into this country via Sweden and the Philadelphia Centennial Exposition of 1876. Instrumental music was added around 1900 and physical education - including gymnasia, swimming pools, and decent athletic fields came in about the time of World War I, even in the crowded city schools.

A good many of these changes appeared first and had the most powerful impact on the suburban schools. The city schools - and this is the case with Boston - often lagged behind the suburbs. And it would be difficult to discount or deny the pull these handsome schools had for the people who took their children off the cramped, city streets and placed them down in the bright, airy suburbs. This exodus from the city to the relatively clean and decent surroundings of the suburbs is still going on. And urban renewal may not be able to persuade people to choose new city housing if their children must be sent off to the nearest old and dilapidated school.

The Standards Now

But this is not meant to imply that all of Boston's schools lack these newer facilities. Boston, like other cities, has also added kindergartens and playrooms and shops and gyms to its schools. Often, however, these newer ideas have been perforce thrust into the same older buildings. Here, for instance, is a kindergarten room in one of Boston's older school buildings.

Similarly, some of the older Boston schools have added play-rooms. Here is one.



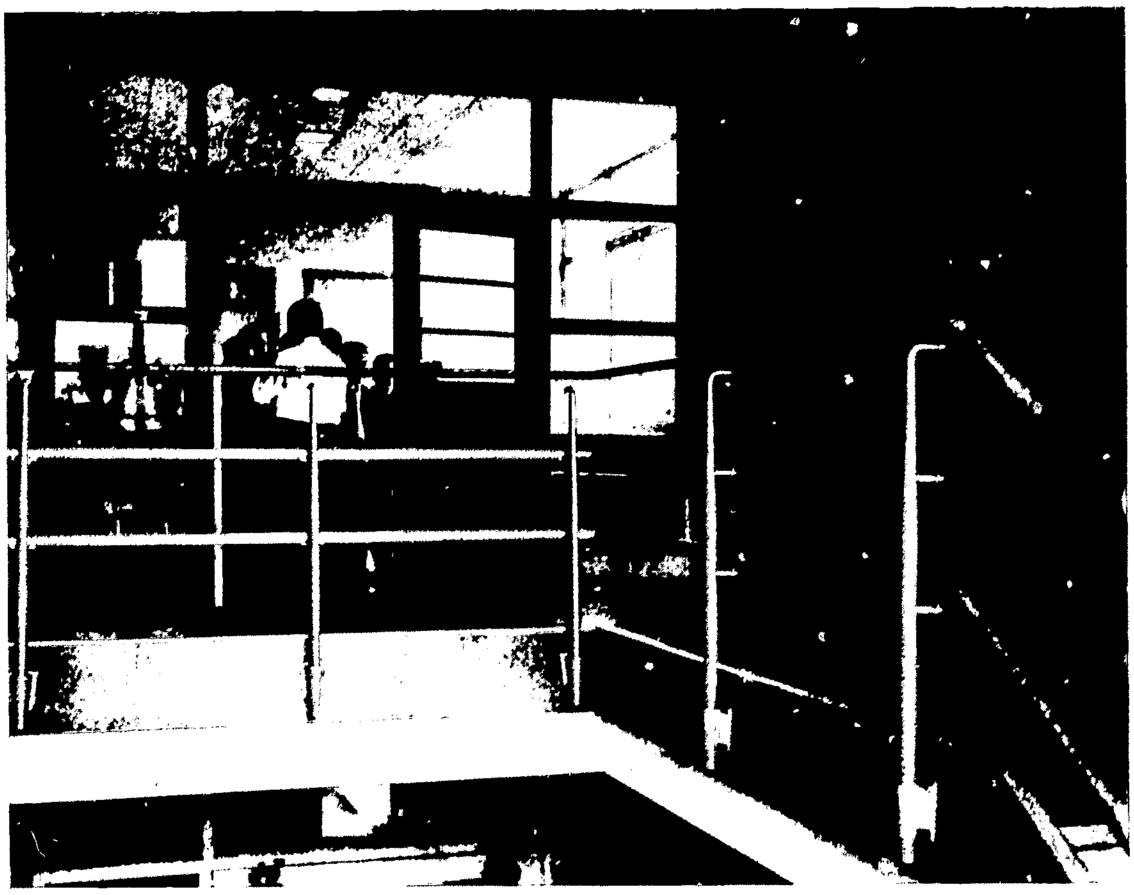
But on the other hand, Boston has also in recent years built some schools that can stand comparison with some of the better sub-urban schools. These are schools that, while they may not be in the forefront of contemporary school planning and design, do provide an environment that indicates a respect for the school's inhabitants. They are schools that have attempted - and in many respects succeeded - in providing light, color, warmth, adequate heating and plumbing, fire-proof stairways, an adequate amount of controlled fresh air, and well-lit corridors.

Here, for instance, are some views of newer Boston schools, all built in the 1950's.

A contemporary, well-lit classroom with moveable furniture looks something like this.

A modern corridor, clear of clutter, reasonably clean, and equipped with fire doors.

A safe, solid metal and ceramic tile stairwell.



Clean, modern plumbing in a sanitary, modern washroom.

Boston also provides in its newer schools some spaces that might be called model and even advanced. Here, for instance, is a kindergarten room - or rather two kindergarten rooms - that are separated by an operable wall so that the two classes may be combined or separated at will. The rooms are bright, cheery, workable, and the children can be gathered into different kinds and sizes of groups without the room interfering with their activities.

The Newer Standards

Boston does have some good school buildings - by the standards of the 1950's. But once again, as always, standards are not standing still. What school people are discovering with increasing bewilderment is that, in fact, our standards and our educational programs are changing so rapidly that it is a very difficult matter to design a schoolhouse today that will not be educationally obsolete in 25 years. A wall that moves in that new kindergarten would not have been imagined as necessary or even particularly desirable 50 years ago. Many informed people now think it desirable to have classes not of a standard and rigid 25 or 30 students, but of widely varying sizes - small seminar groups of 15 and large lecture groups of up to 150, and not only in high schools but in elementary schools as well. This means that the standardized classroom is already obsolescent. And thus walls that can be moved back out of the way, if there is a need to form a larger group, become a new requirement.

Thus it seems apparent that many of the schools built during the past 10 years, while they are clean, bright, and airy, and feature excellent plumbing, are still not the best schoolhouses that contemporary educators and architects can devise. The same process of change that has altered those 1850 school buildings is still very much at work.

New Uses for New Schools

The process of change applies to more than the interior planning of schools too. The role that first-class schools can and do play in the rehabilitation and reformation of cities has already been mentioned. But there are other ways in which schools can and should make a contribution to the community in which they are placed And these other ways involve some radical re-thinking about what a school is and what it should accomplish for the city which builds it and pays for it.

Schools should, for instance, be used more than they are - not just in the summer when they are air-conditioned, but after 3 p.m. as well. They should, in short, be used by other groups in the community and should be designed to fit these purposes as well as the education of children. Indeed, schools are now being designed in various parts of the country that combine the school function with other civic functions such as branch libraries, teen-age and adult recreation centers, welfare and public health agencies. After school hours, many school buildings become adult education centers, headquarters for meetings of neighborhood civic groups, clubs, amateur theatricals, arts and crafts, and senior citizen activities.

In this way, schools can become a major weapon in the arsenal of city revival and renewal. Schools can serve as focal points around which neighborhoods can rally to fight off blight and disintegration and the further fleeing of families to the suburbs.

But this kind of service from schools requires careful, thoughtful planning - and a great deal of cooperation among all of the various governmental agencies. And above all, it requires imaginative planning and design of the buildings themselves, not only to avoid educational obsolescence but to insure that the new schoolhouse serves well all of its newly acquired tasks.

The Virtues and Necessities of Good Design

But these are not the only reasons for the wise planning of schools and the first-rate execution of those plans into quality architecture.

In this connection, it is important to remember that in their day, the still extant Boston schools of the 1850's were good architecture and good design. By the standards of that day, these school buildings expressed the best and most advanced building materials, assembled and put together in the most advanced ways available to the architects of the middle 19th century. Brick, brownstone, the solid plaster wall, heavy wood beams, paneling and staircases - these were the standard, the best materials. The high ceiling, the gravity feed heating systems, the three or four story exterior and interior walls that were used not only to fend off the weather but also to hold up the roof - these were among the accepted ways of putting materials together into the form of a usable, workable building.

But in the 100 years since those buildings were constructed we have discovered and put to use many new materials - steel for framing the building and holding up the roof, large stretches of glass to allow more light, brightly colored ceramic and plastic tiles for floors and walls, highly sophisticated pre-stressed concrete beams and slabs that allow us to span 150 feet of space clear of any interior obstructions. With materials such as these at our disposal, it becomes the job of the architectural designer to assemble them, to put them together in new and different ways, always aware not only of the function to which the building will be put but also of the aesthetic possibilities inherent in the wide variety of combinations at his command.

These new materials and new ways of putting them together, it should be remembered, are not only the most practical methods available; they are also the most economical. The cost of reproducing today one of those 1850 schools would be exorbitant. The materials, the workmen skilled in putting them together in the manner of the 1850's, and the amount of time consumed in this process, are now too expensive to be deemed economically possible. As is the case with our educational programs and methods, time and progress have rendered these older school buildings obsolete and impractical.

With the newer materials and methods it is now possible for an architect to put together a schoolhouse that is clean, bright, airy, well-lit and well-ventilated, a schoolhouse that truly provides an environment that shows respect for the children who inhabit it and makes a contribution not only to the learning of the children but to their social attitudes as well. The effect of better schoolhouses on the behavior of children is noticeable every day.

It is equally possible for an architect to take these contemporary materials and methods and grind out a mediocrity of glass and steel that not only fails to work as a schoolhouse but scars the neighborhood. These are exactly the buildings that cause the most trouble and in the long run cost the most as well. Besides the fact that they blot the landscape, these badly planned and executed schoolhouses are generally the first to be abandoned, often long before their useful life as buildings should be over.

It is at this point that the best interests of the community at large must make themselves felt. Schools are the most frequently built public buildings. More money is committed to the schoolhouse than to any other public institution in the urban setting. It is wise public policy to make the best possible use of these substantial and necessary expenditures. And the best possible use includes several functions, among them that these buildings should work extremely well as envelopes for the educational process, that they should be a fitting habitation for our children, and surely of utmost importance too, that they should enhance the neighborhoods in which they are situated.

It would be difficult to stress this last point too strongly. Just as there is such a thing as educational obsolescence, there can be "community obsolescence" as well - the failure of a schoolhouse to serve its neighborhood with all of the educational and community facilities that it should have. So too - if it is a thing of use and beauty - it can become a rallying point, the visual yardstick against which the neighborhood can measure its own aesthetic standards.

There are architects of mediocrity, but there are also architects of talent and imagination. Since the architect of talent costs the city no more than the architect of ugliness, Boston should have the best, the most wisely planned, and the most aesthetically enthralling schools in the United States.

Chapter II

THE ELEMENTS OF THIS STUDY

The elements of this study consist basically of numbers: school children - how many are there now and how many are anticipated by 1970? How many classrooms and supporting facilities will be needed to house these children? What will be the cost of building these facilities?

These questions call not only for a counting of children and a determination of where they are now located or may be located in the future; they also call for a judgment as to the safety and suitability of the present school buildings. And any resulting recommendations for abandonments and new construction should be made in a sound, consistent, and comprehensive organizational framework to allow for future flexibility in the growth and development of Boston's school plant.

To this end the study staff made a detailed and intensive analysis of population and school enrollment changes, assessed each individual school building in detail, making an inventory of existing conditions, and reached recommendations as to the usefulness and adequacy of each school building.

A new element in the present analysis is the unusual Boston Redevelopment Program which will in some cases redefine the use of an area for residential, industrial, or commercial use. This development represents the new dynamics of the city which must be taken into account in recommending a school building program.

Finally, the study staff viewed the problem of the organization of the entire school system in order to fit the recommendations for specific schools within a framework which will make the future development of the Boston public schools most efficient and effective. For the reader who wishes to follow the details of the analyses, the data are presented in the several technical appendices. The essential elements are summarized here.

A. School Enrollments

Boston public school enrollments have been continually declining since 1933, dropping from slightly over 137,500 to approximately 89,000 in 1955. In the period from 1950 to 1960, however, they have remained relatively stable, decreasing only from 92,000 to approximately 89,000.[1] In 1960 and again in 1961 they began to increase, and in 1961 this increase amounted to approximately 1,500 pupils. Boston can expect a further growth in public school enrollments by 1965 to 94,000, and in 1970 to 106,000. This growth can be expected to take place in spite of the continued out-migration of the total population, which is expected to occur at a slower rate. This increase in enrollments is due substantially to the changing ethnic composition of the population and to the age distribution of those expected to remain in and migrate to the city. For the first time in a number of years, then, Boston is confronted with the need not only to abandon old school buildings, but to provide for an expansion of the total capacity of the school plant.

1. These figures include all regular pupils, pupils in special classes, non-resident pupils, and post-graduates.

B. Building Evaluation

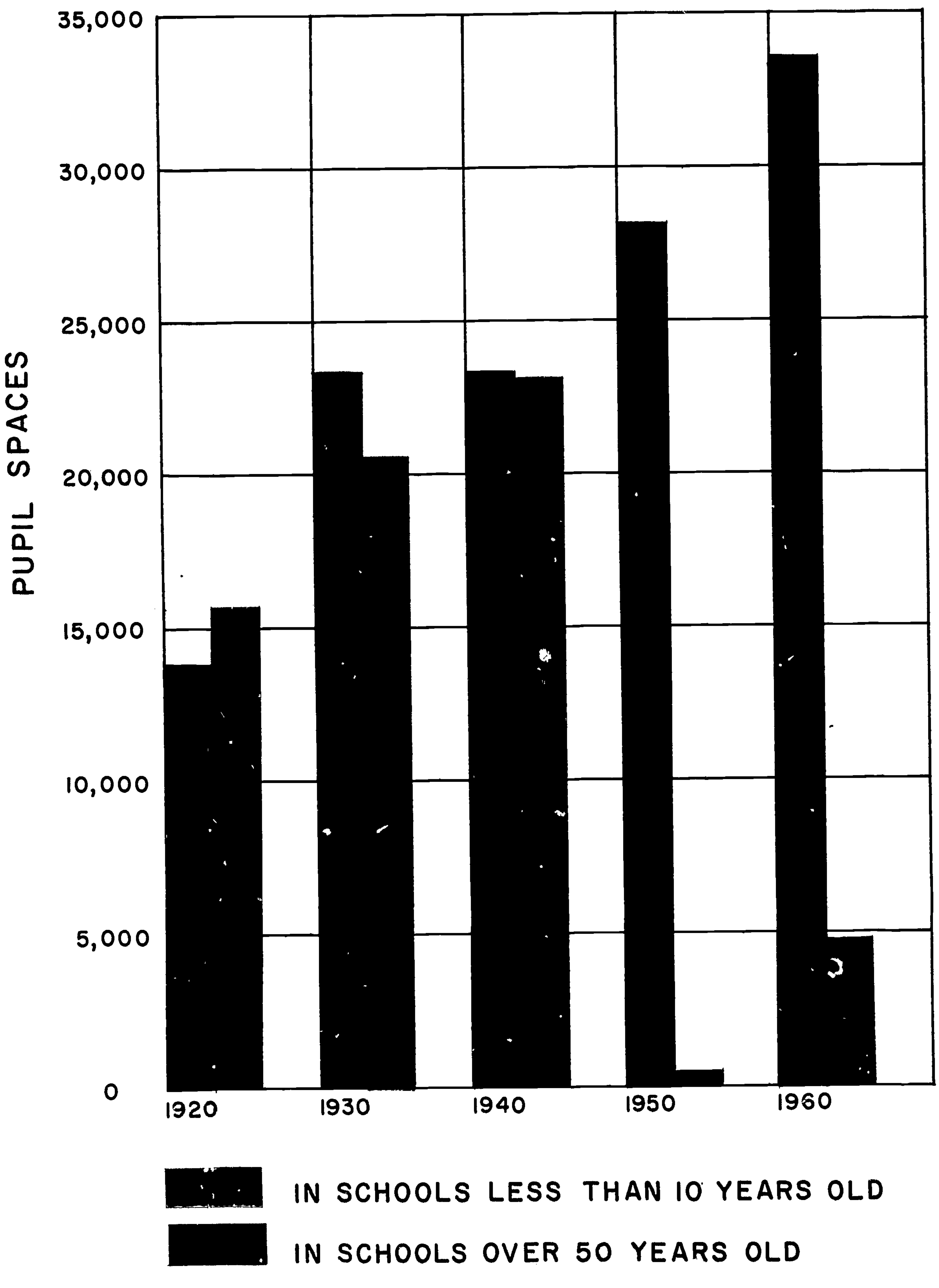
An evaluation of the school plant in a city such as Boston must take into account a variety of factors to determine the suitability of each building for retention. Five factors have been included in this study:

1. Educational suitability
2. Age and type of structure
3. Degree of deterioration
4. Location in relation to population patterns
5. Fire safety

Boston's school plant is old, and while age in and of itself is not necessarily a condition for abandonment, it is frequently, if not always, accompanied by sub-standard heating, lighting, and ventilating conditions with obsolete plumbing fixtures usually located in the basement. Building repairs, including plastering, flooring, window framing, stairways, and doors, and general painting of an extensive nature, are almost universally necessary. When these repairs are coupled with the condition of the exterior walls, with the need for repointing, repainting, and weatherproofing - and frequently the replacement of the roofing - it is uneconomical to consider attempting to bring many of these buildings up to contemporary standards.

More importantly, as the description of some of the older school buildings suggests, many are of wood frame construction, with floors and roofs also of wood, even though the exterior wall is of masonry or other incombustible material. The newest schools have incombustible

PUPIL SPACES IN OLDEST AND NEWEST SCHOOLS



materials in all structural parts and the floors and roofs are of three-hour fire-resistant construction and furnish protection of a three-hour fire rating against the spread of fire. For reasons of safety, schools of more than one story with wooden stairs, wooden frames, and wooden floors should be abandoned soon.

The size of the problem facing Boston can be seen by contrasting the number of pupils housed in buildings of less than 10 years of age with the number in buildings over 50 years old (see Figure 1). In 1920 about the same number of pupils were housed in the newest as in the oldest schools. By 1960 this proportion had shifted so that while only about 5,000 youngsters were in schools less than 10 years old, almost 34,000 were in schools of over 50. If these figures are analyzed further, it is found that of these 34,000 pupils, 12,000 are in schools of over 70 years of age. This in spite of the fact that Boston has been abandoning between 30 and 50 buildings in each of the decades since 1930. But the city has not replaced these buildings. The most dramatic illustration of this is that in the 1940 to 1950 period, new capacity was added for only 150 pupils.

Boston is therefore faced with a problem compounded by inaction. Although in the past it has been possible to delay replacement of the schools which had to be abandoned and still maintain sufficient capacity to accommodate existing enrollments with a minimum of crowding, this will not be the case in the future. Not only must a substantial number of the oldest school buildings be abandoned and new construction provided to replace them, but additional space must be provided to accommodate the expected growth. If the recommendations of this study are followed, by 1975 over 37,000 pupils will be in schools of less than 10 years of age, and those in schools that have become 50 or more years old will have decreased to just under 30,000 (Figure 2).

C. Organization

The Boston school system today is organized on a mixed basis: 6-year elementary schools, 3-year junior high schools, and 3-year senior high schools. There are 8-year elementary schools with 4-year senior high schools, and there are two 6-year high schools. As is true of most cities, Boston began to adopt the junior high school program at a time when enrollment pressures were heavy and program and curriculum changes seemed to point to a change in organization. As a result, the upper two years of the elementary schools (grades 7 and 8) and the lower year of the high school (grade 9) were combined to form a new unit for these three grades, providing opportunity for improved programs and making available extra space in the existing elementary schools and senior high schools by reducing the number of grades in these schools.

However, Boston did not complete the transition to a 6-year elementary, 3-year junior high, and 3-year senior high school system. Instead, eight of the high schools today are still 4-year high schools, six are 3-year high schools, two are 6-year schools (see Table 1). All of the city-wide schools are either 4 or 6-year schools, and Burke, East Boston, and South Boston are also 4-year schools (Map 1). As a result of this mixture of organizational arrangements, the ninth grade is at times part of the junior high school and

(continued page I-28)

FIGURE 2

PUPIL SPACES IN OLDEST AND NEWEST SCHOOLS AFTER PROGRAM (1960-1975)

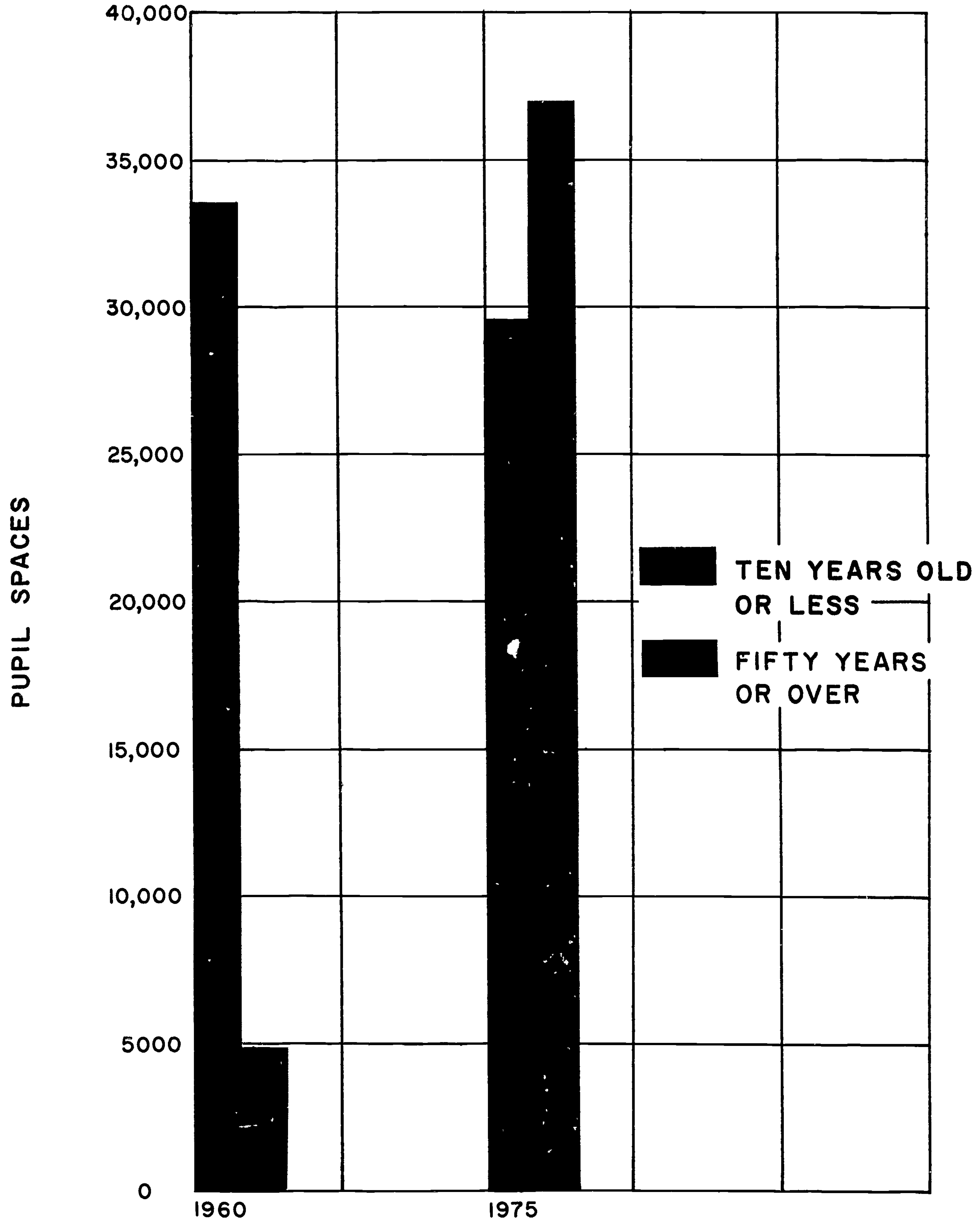


TABLE I

ORGANIZATION OF EXISTING HIGH SCHOOLS

		Grades
City-wide Schools		
Boston Latin	Boys	7-12
Girls' Latin	Girls	7-12
Boston Technical	Boys	9-12
English	Boys	10-12
Annex (T. Roosevelt)	Boys	9
Girls' High	Girls	9-12
Boston Trade	Boys	9-12
Annex (H. L. Pierce)	Boys	9-12
Trade High for Girls	Girls	9-12
Area Schools		
Brighton		10-12
Charlestown and Annex		10-12
Dorchester		10-12
East Boston		9-12
Hyde Park		10-12
Jamaica Plain		10-12
(Agricultural Co-op)		9-12
J. E. Burke	Girls	9-12
Roslindale		10-12
South Boston		9-12

at times part of the senior high school. City-wide specialized schools are obliged to accept entering classes in both the ninth and tenth grade to accommodate the different pattern of the grade organization in the various parts of the city.

D. Abandonments

The 1953 study of school buildings recommended the abandonment of 63 school buildings by 1960. In 1953, the School Committee abandoned 16 of the 17 recommended for that year and in addition, closed the Brandeis Vocational High School. Subsequently, 16 more schools were abandoned between the period 1953 and 1960. But of the new elementary school construction which was recommended for some 14,000 pupils, space for only 5,000 had been provided by 1960. The recommendations in this study, therefore, are in part a reiteration of the earlier recommendations and the cost of the program is partly accounted for in making up this lag. The rest of the program must be viewed in terms of needs seven years later and the conditions of buildings at present.

By 1965, 27 schools, or their oldest parts, are recommended for abandonment. Of these, 16 were constructed before 1890, another 4 before 1900, and only 7 since 1900. Between 1965 and 1970, 35 additional schools are recommended for abandonment. Of these, 11 were constructed before 1890, an additional 11 before 1900, and 13 between 1900 and 1930. In the period between 1970 and 1975, 19 more schools should be abandoned, bringing the total to 81 between now and 1975. (Table 2) It is obvious, therefore, that Boston faces a major task in rebuilding its school plant.

TABLE 2

RECOMMENDED SCHOOL ABANDONMENTS

By 1965

1840-1899	1890-1899	1900-1909	1910-1930
Allston	Agassiz	Allen	McDonald
Andrew	Fuller	Boardman	McKinley
Bancroft	A. Webster	Cheverus	Michelangelo*
Bunker Hill	Weld		Winthrop
Davis			
Dillaway			
Dudley			
Gaston			
Harvard			
Howe			
Lowell			
Lyman			
Old Agassiz			
Quincy			
"Polk Street"			
Prescott			

By 1970

1860-1889	1890-1899	1900-1909	1910-1930
Atherton	Burnham	Barnes	Abrahams
J. Bates	Business Education	Brooks	Bulfinch
Everett	Clap	Chapman	Fenwick
Godvin	Gibson	Girls' Trade	L. Mason
Gray	M. Hemenway	Rogers*	Nightingale
Hart	Kent	Wolcott	Sheridan
Hyde	May		Trade High
Minot	F. Parkman*		
Prince	Pierce (Trade Annex)		
Sherwin	Taft*		
Southworth	Williams		

*original

TABLE 2

RECOMMENDED SCHOOL ABANDONMENTS

(continued)

By 1975

1867	1890-1899	1900-1909	1910-1930
Norcross	Bacon	Marshall	M. Baker
	Bowditch		Dickerman
	Cushing		Leen
	Dean		Logue
	Longfellow		J. Mason
	Oak Square		Tileston
	Palmer		J. Williams
	C. Perkins		
	Stuart		
	Wyman		

It is possible, of course, to become accustomed to existing conditions, to fail to see the true sub-standard character of school buildings which have been in use for decades. Although most of Boston's citizens probably have not been inside the schools recently and are unaware of their condition, it would be well if the parents and citizens of Boston would take the opportunity to compare the oldest schools and the newest. For it is only by actually observing and sensing the difference between the old and the new that one can appreciate the range of conditions in which children are living and learning; onlv by observing can one acquire some feeling of the tremendous differences in the environments provided for children of the city.

Chapter III

THE PLAN FOR BOSTON

In arriving at recommendations for the program of school construction for Boston, a number of factors have been used to evaluate alternative possibilities. These factors, not all of which are of equal weight, represent generally accepted standards which should be considered in assessing any program. They are: (1) equalizing educational opportunity for all children; (2) relating school buildings to geography and community; (3) providing efficient and economical school buildings and sound educational programs; (4) avoiding one-year schools for any pupils; (5) providing school buildings of a type and in locations which will be conducive to community use; (6) providing a sound framework of flexibility for future growth and change.

A. Organization

The basic principle of grade organization in any school system is that at the key point of grade transfer the system should operate as uniformly as possible throughout, and, in addition, that one-year schools be avoided. While it is true that most elementary parochial school children who go to the public high schools attend the city-wide schools, it still remains that for those who wish to attend one of the area high schools, there results a one-year junior high school period before admission to the area senior high school. Such is also the case for some elementary pupils, in Dorchester and Roslindale for instance. This represents a serious educational handicap because of lack of properly integrated classroom work and the necessity of changing schools too frequently. A first step, therefore, in reviewing the possible alternatives was to study the kindergarten through grade 8 elementary school and 4-year senior high school system. However, the need for curriculum diversification, subject-matter specialization of teachers, and the provision of specialized spaces and equipment, i.e., science, shops, home economics, and gymnasia, emphasize the need for a separate school facility for older elementary pupils. Moreover, it has been suggested that psychological factors exist among the 10 to 13 age group which also tend to support the preference for separate school arrangements. On the basis of educational advantages, the available evidence and judgment support the recommendation that Boston move to complete its grade reorganization so as to use the intermediate or junior high school principle throughout the system.

At the same time it should be recognized that there are impressive arguments in support of the 4-year high school, which not only give recognition to the maturity of the ninth-grade pupils but permit and encourage a more sustained and vigorous education program throughout the high school years. There are aspects of the ninth grade, including the elective system, that bear a special relationship to the tenth grade and later sequences of study. A 4-year high school system which also provides continuity in the guidance program can be expected to support more effectively the educational goals. If possible, therefore, it would seem desirable that Boston adopt the city-wide high school on a 4-year basis, while giving full recognition to the separate intermediate or junior high school principle. A program to meet both of these objectives, if economical and efficient, might well be the most effective grade organization for the city.

Analysis has shown that a reorganization of this nature would be not only an efficient way for accommodating future enrollment growth and at the same time making efficient use of the existing separate intermediate school facilities, but most importantly it would provide Boston with a unique opportunity to develop a new secondary school pattern for the city in response to both enrollment growth and needed new construction.

It is recommended, therefore, that Boston adopt grade organization consisting of kindergarten through grade 5 elementary schools, grades 6 through 8 intermediate or junior high schools, and 4-year high schools. In conformity with the recently completed study, the two Latin Schools would continue to serve as 6-year schools.

This plan not only provides for a strong junior high school program but affords substantial educational advantages in permitting specialized instruction in the intermediate schools. For example, subject-matter specialization in science, languages, mathematics, and industrial arts and homemaking can be made available throughout the system and introduced, wherever appropriate, at the sixth-grade level. Boston has already moved in this direction through the introduction of shop and homemaking programs in the sixth grades of some elementary schools. Under this plan also, guidance programs can be initiated at the sixth-grade level in the intermediate schools at the stage where pupil interest, motivation, and aptitude for further schooling are taking shape, and these guidance programs can be established on a continuing basis. The study strongly recommends, therefore, that the future pattern for grade organization for the city consist of elementary schools for grades K-5, intermediate schools for grades 6-8, and high schools for grades 9-12.

This change in grade organization will mean that by 1970 it will be necessary to accommodate 25,500 pupils in the senior high schools of the city. Since the capacity of the high schools at the present time is approximately 20,000, including space in T. Roosevelt (English High School Annex), it can be seen that 5,500 additional spaces will be required beyond any necessary to replace abandoned buildings and to relinquish T. Roosevelt for other uses.

By providing for these spaces in senior high schools, while continuing a 3-year intermediate school, most elementary schools can efficiently accommodate the K-5 enrollments. Construction is needed on the elementary level, however, both to replace old buildings and to house rapidly growing public school enrollments in certain sections of the city.

B. The High School

By 1970, Boston will need to provide new space for about 5,500 high school students. Roughly, this figure breaks down into the following necessary new spaces: 3,100 by 1965, an additional 800 by 1968, a further rise to 4,700 in 1969, and the full 5,500 in 1970. Given this increase in the number of students to be housed, the question immediately becomes one of how best to handle this far from inconsiderable rise in population.

(1) Two Basic Provisions

Assuming that any high school is staffed with first-rate teachers and has a sound administrative staff, there are two further attributes that a first-class high school should be able to provide for its students.

The first of these might be called "academic variety" - a wide enough selection of courses and programs, be they college entrance or of a more vocational nature, so that every student in the school can select the program that best suits his individual personality and talents.

The second of these ideal attributes might be called "academic mobility" - the ability each student should have to alter his course of studies as his knowledge of himself and his own aspiration changes.

(2) Variety of Opportunity

Very few high schools in the United States offer the range of educational choice that should be offered to the typical American student body. Even the most comprehensive high schools rarely offer more than four "tracks" - college bound, general, commercial, and vocational. In communities such as Boston that have specialized high schools, the range of opportunity can be even smaller, for within the specialized school it is often impossible to provide much more than a purely academic, purely scientific, or purely vocational program.

To some extent, the range of possible opportunity varies almost in direct proportion to size. In the typical 1,000 or 1,500 pupil rural or suburban high school, for instance, there may be only

5 or 6 students who are equipped or have the time to study advanced work in the sciences, mathematics, or languages. It is not economically feasible for such a school to train or hire 2 teachers, one in advanced physics, the other in advanced Russian, for only 10 or 12 students. Thus, those talented young people do not get the program they should be offered.

Similarly, there may be 10 or 12 students who, with a fair amount of specialized teaching and counseling, could begin to understand better their own capabilities and to discover that learning can be worthwhile. Or there may be another small group of students who could benefit most from a program that combined a half day of school with a half day of work. But again, such specialized programs require special teachers, and no small school can afford such programs for only a few students.

Yet in a 3,000 pupil school containing many students of all levels and abilities, there would in all likelihood be more than enough students to fill any particularized program the school might think it necessary to offer. And in a 5,000 pupil school, the opportunities would be commensurately greater.

This same argument holds true for the provision of the facilities necessary for a good educational program. It is an extremely expensive operation to provide several 1,000 or 2,000 student high schools with all of the equipment, the spaces, and particularized areas that a good school requires. In part this is due to the fact that an expensive piece of equipment such as an interferometer or an expensive space such as a well equipped theater for dramatics is probably going to be used by a very small percentage of the 1,000 or 2,000 students. It is hard to justify spending a great deal of money for such a small number of students.

In a large school, however, the number of students who need the interferometer or the theater rises sharply. Neither the equipment nor the space will remain idle and therefore wasted; on this basis, it not only becomes permissible, it becomes necessary to provide these facilities.

(3) The Ability to Change

The large majority of students are about 13 or 14 years old when they enter high school in the ninth grade. In a good many, if not most, school systems, these 13 and 14 year olds are called upon to decide which of the four "tracks" they wish to follow for the next four years. True, this decision is frequently made upon the advice of the school guidance counselor. Or the decision is made for the student by his parents. In any case, the facts seem to show that a decision of this magnitude in the case of a 14 year old boy or girl is not always a wise one. Students often change in mid-adolescence or begin to discover in themselves abilities - or lack of abilities - of which they were not initially aware.

There is growing evidence to support the view that placing students in any particular scholastic category is an unwise and even unjustified thing to do. "School" in American society is generally designed primarily for children whose talents lie in the area of academic work. It is also designed primarily for children who can sit still and study and who are relatively well behaved.

But not all children are like that, as any educator can testify. There seem to be many, many students who just do not seem to "fit into" schools and who more often than not "drop out".

But there is increasing evidence pointing to the possibility that it is not so much the students who do not "fit" the school as it is the school that does not "fit" the student. It has been discovered, for instance, that academic talent (at least the kind measured by intelligence tests and achievement scores in school) is intimately connected with a student's motivations and contacts, which often depend on social and economic surroundings and opportunities - or lack of them. Scores on intelligence tests have actually been raised as much as 70 points (or roughly the difference between a retarded youngster and a gifted student) by means of such special programs as New York City's Higher Horizons. Similarly, many students who can pass an entrance exam to an academic high school might by natural inclination be better suited to a more vocationally oriented school.

What this means in terms of Boston's young people is that the students should be allowed to develop along their own most natural bents, to change whenever and as they need to, and to alter their school programs accordingly. And the best, most efficient, way to promote this kind of academic flexibility is to organize a high school that is, in the first place, large enough to provide a wide variety of programs and opportunities, and, in the second place, that does not label students with "track" signs and make it difficult for them to mix their own ideal educational brew. Finally, the school program should be mobile enough to allow the student - with the guidance of counselors and teachers - to alter the program whenever and wherever necessary.

(4) A Unique Opportunity

There are, then, powerful and practical educational reasons for the creation of a single, large high school providing each of its students with the facilities and the educational program he or she should be receiving.

Given its present situation, Boston is presented with an opportunity that few cities are fortunate enough to have. While new high school space for 5,500 students is needed by 1970, this space is not required all at once. Thus, if the high school were planned for an initial enrollment of 3,100 students, it could grow in easy stages to its final size of 5,500. In this process of organic growth, it could become whatever kind of high school Boston needed or wished. Some of the programs mentioned so far in this study - especially the programs aimed at providing academic variety and academic mobility - could be tried out in this school. If they worked, they could then be gradually expanded and improved as the school grows. This organic growth then makes it possible to plan, experiment, and develop a program of secondary education which is at once dynamic, imaginative, and tailored to the particular needs of urban youth.

(5) A New City High School

A high school for so large a number of students as 5,500 is a unique proposition. In fact, 5,500 is so large a number that this high school ceases to be a conventional high school at all and should be treated as something new on the educational horizon. It has potentialities that far transcend the ordinary school; it also has some inherent dangers that call for careful and imaginative planning if they are to be avoided.

This new school has, to put it briefly, most of the opportunities and dangers that are ordinarily thought of in the planning, not of high schools, but of universities. And this, essentially, is what is being talked about here - a university of the high school.

(6) The Opportunities

Some of the opportunities have already been suggested. The new school might contain within it smaller, more specialized units, e.g., one devoted to advanced work so that some students, no matter what overall program they might have selected, could be doing advanced academic work, perhaps even completing the first year of college while still in the high school. Similarly, there might be a special program designed along the lines of New York's Higher Horizons that could offer unique cultural and educational opportunities to the talented students who have been retarded by poor social and economic backgrounds.

There could, and certainly should, be a work-study program for those whose main talents are manual - yet this kind of program might well be broadened to include other students who for a variety of reasons might benefit from work experience in conjunction with their studies, even on occasion advanced students, perhaps in physics, who might spend some of their time in research laboratories.

The large number of students in this high school and the wide range of their abilities would also make it possible to offer a greatly increased number of other specialized programs that smaller schools could not offer, such as intensive programs in the performing arts (theater, music, the dance, and drama); computer technology (such a school might well be able to afford data processing equipment if not a medium sized computer); advanced science courses (such as the PSSC course in advanced topics); special new science courses for students who are scientifically talented but who lack the theoretical bent; special courses in fashion design (rather than simple dressmaking) or advanced merchandising; or astronomy. The possibilities are almost endless.

For 5,500 students it would also be economically feasible to provide many auxiliary services and facilities that could not easily be justified for smaller schools: equipment (besides the computer and the telescope) such as language laboratories; a vastly increased and modernized library with a minimum of 80,000 to 100,000 books (some might be housed in the buildings devoted to special subjects) with special spaces for individual study and research; more specialized laboratory equipment and laboratories; music practice rooms; a modern theater; adequate gymnasium and recreation space; perhaps even a snack bar and cafeteria so that the school could compete for the student time and interest with the corner drugstore or the local bowling alley. Again, the possibilities never cease.

(7) The House Plan

But there are drawbacks to a school as large as 5,500. The major one is the very real possibility that one single individual student could all too easily get completely lost in a great mass of students and never find his own footing, either educationally or socially. This often happens now in schools of only 1,500 or 2,000. Often only a few people, students or teachers, know a student's name. He is "that boy in the red sweater" but not Jim Murphy. One suggestion for combatting this kind of destructive alienation is the one we recommend for this school - the creation of "houses"; that is, small, separate schools within the larger school, housing no more than 550 students. The students in each house would be drawn from all the grades, 9 through 12.

Each house would be staffed with its own administrator and its own teaching staff who would teach those subjects that do not require specialized spaces, subjects such as English, history, government, foreign languages (when not taught in the language labs), economics, etc. Each house would have its own guidance counselors as well, and a student remaining in the house for four years would thus always be supervised by people who knew him intimately and who cared about him. The students would leave the house for instruction in all subjects, such as science, physical education, art and music, that require special facilities. But he would always return to his home base for some of his work. Someone would always know his name.

The house plan would also offer a great variety of opportunities for leadership - many more opportunities, in fact, than the typical high school. Within a group of 550, students would be able to attain scholastic honors more easily, to hold class or house offices, and make a contribution to the house life. An intramural sports program would also enable the less talented athletes to participate. The school's diversity and variety would also allow some students to excel in music, art, or drama as well as in the more conventional academic disciplines.

(8) The School

In schematic form, a campus high school with its variety of specialized programs and facilities and its house plan, might look something like Figure 3.

And what it might look like set into a site in Central Boston is shown in Figure 4.

This, then, is one outline of a possible way to organize a new city high school in Central Boston. Such an outline only skims the possibilities and barely touches on all the opportunities such a plan offers. It is our belief that it is the most promising plan for Boston. The study therefore strongly recommends it.

The development of this central campus high school offers another possibility: English High School has outgrown its present building so that the ninth grade is presently being housed in the T. Roosevelt School. Because of its restricted site, the present building should not be expanded. It is recommended, therefore, that a new building for English High School be made the major part of the first construction for 3,100, thus carrying over the strong traditions and achievements of that school and using them as a core for the new campus school.

(9) Other High School Recommendations

In order to further the reorganization of the high schools on a four-year basis, it is necessary to consider the Trade School and the Cooperative Program facilities in the area schools. The existing Trade School building is far from satisfactory for the future program of this nature in Boston. The Trade School should therefore be housed in new quarters and at the time these new facilities should be made available - in 1967 - the cooperative units should also be brought together in a city-wide facility. A school for 3,000 pupils should be built for the combined Trade and Cooperative Programs. This will allow a better coordination of the entire program and will permit a necessary and important review of the whole future of vocational education and trade training in Boston, giving the city a chance to revitalize and redirect these programs in keeping with the future development of the changing technical demands of the society. The space vacated by the Cooperative Programs can be used effectively in the gradual expansion of the ninth grade into the several area high schools.

When the new campus high school is opened in 1965, it will be possible to establish English High School on this campus as the major part of the first unit. A one-year period will be needed to rehabilitate the present English High School building, improve the gym, locker facilities, classrooms, libraries, and provide a cafeteria, all of which will then make it possible to open this building for Girls'

Latin School. This more central location may help make it possible for Girls' Latin School to draw more nearly proportionately on a city-wide basis,as does **Boston** Latin. In 1966, when Girls' Latin moves to the present English High School, it will be possible to abandon the existing Girls' Trade School building, which is entirely unsatisfactory as a school, and move its pupils into the present Girls' Latin School. At the same time the remaining space in the present Girls' Latin School can be used to accommodate the School of Business Education and its present building can also be abandoned. By opening additional units of 800 in the campus school in 1968, 1969, and 1970, the entire secondary school growth can be accommodated and the transition to the 4-year senior high school completed for all areas of the city by 1972 at the latest. Boston will then have a reorganized and greatly strengthened secondary school plant and the opportunity to move ahead with an invigorating and exciting new development in the field of secondary education.

C. Further Recommendations

(1) Elementary and Intermediate Schools

In addition to construction at the high school level between 1965 and 1975, 7 additional intermediate schools and 10 additions for grades 6 through 8 are required, for a total capacity of 6,700, and also 55 new elementary schools and 12 additions to provide for space to replace abandoned buildings and accommodate an additional 10,800 pupils. The detailed recommendations for the intermediate and elementary schools are presented in the area reports. Table 3 summarizes this new construction by years.

TABLE 3

SUMMARY OF RECOMMENDED CONSTRUCTION BY YEARS

	ELEMENTARY			INTERMEDIATE		
Year	No. of Schools	Capacity	Special Classes	No. of Schools	Capacity	Special Classes
1964	5 and 1 Add.	2,590	11	2 and 3 Add.*	1,900	6
1965	9 and 4 Add.	4,420	7	2	1,400	5
1966	9 and 1 Add.	3,710	5	2	1,400	4
1967	3	1,400	6	2 Add.*	300	
1968	8 and 1 Add.	3,740	7	1 Add.	300	
1969	1 and 1 Add.	750	2			
1970	7 and 1 Add.	2,700	5	1 and 4 Add.	1,425	2
By 1975	13 and 3 Add.	6,300				
Totals	55 elem. 12 add.	25,610	43	7 interm. 10 add.	6,725	17

*includes 1 School-Community Center

At the end of this construction program, Boston should have a modern up-to-date school plant, capable in every way of providing the kind of educational qualities appropriate to a strong and vigorous educational program for the children and youth of the city (Figure 5). With the active support and cooperation of its citizens, Boston during the 1960's can make major strides in bringing its school plant up to date. This, perhaps above all else, is the most important part of creating a new and better city and a new way of life, not only for youth but for all Boston citizens.

(2) Rehabilitation and Maintenance

Even a casual inspection of the exterior of school buildings will show that Boston has not been putting enough effort into the maintenance of its schools. These are important capital investments in any community and should be carefully conserved. Schools suffer very heavy wear and only by conducting a vigorous preventive maintenance program is it possible not only to avoid unnecessary and expensive major repairs, but to lengthen considerably the useful life of the buildings. In the years immediately following 1945, Boston centered its efforts in large measure on improving the condition of the school buildings as to fire safety, which is certainly commendable. However, this commitment acted to accentuate the lack of normal maintenance with the result, as can be seen from an analysis of the buildings to be abandoned, that deterioration and decay has proceeded unnecessarily rapidly. It is therefore recommended that the practice of year-to-year decisions for school rehabilitation be strengthened by preparing detailed analyses of the extent of needed renovations in each school building in order to bring the entire school plant up to acceptable standards within the next 7 to 10 years, and that funds be appropriated for this purpose. Once this major overhaul has been accomplished, an annual maintenance program at a high enough level to maintain the quality of the school plant throughout the city, will represent substantial long-range economy for Boston. Until such time, the schools will in many cases continue in ill repair and will be difficult to keep clean.

In examining the Boston schools one cannot help but be impressed by the range of differences in the quality of day-to-day housekeeping. Part of the difficulty in some cases may lie in the actual disrepair of the building itself. But examples in comparable buildings show substantial differences in cleanliness, neatness, and in the general overall supervision of the building. To make a long-term maintenance program most effective, it will be necessary to support it with housekeeping of a thorough nature, not only for the well being and health of the pupils, but also to secure full value for the investment in new materials and equipment.

(3) <u>School Sites</u>

The typical Boston school is located on a site somewhere between a half and one acre. Frequently this small site has been further crowded by the construction of an addition to an already existing building. Part of the site may also be used at times for parking automobiles.

By no means new to schools is the goal for more adequate provision for both indoor and outdoor space and facilities for physical education and play. The strong national concern for a program of physical fitness, which has come about as a result of unfavorable findings concerning the fitness of youths of this country, should lead us to look again at the cramped conditions of indoor and outdoor school space in which so many urban school children try to live and grow.

The very paucity of space available to children in their urban homes, the adjacent narrow alleys and traffic-packed streets, and the bare small playgrounds, are all arguments for a new liberality in urban school sites and design. It is, however, patently clear that high land costs in the central city make it impossible for the city to establish those site standards which the suburban community accepts. It is also true that substantially increased site sizes are required in order to provide space for the necessary programs and to encourage people to compare the city school favorably with its suburban counterpart.

Land requirements for schools are determined by the size of the building, the physical education program, and the land needed for parking, circulation, and setback. Of these three categories, physical education and athletic programs demand by far the most space. In Boston these latter programs consist of four types of activities: (1) the physical education program conducted during the regular school hours; (2) organized recess programs; (3) voluntary after-school intramural activities; and (4) interscholastic games. A summary of space requirements for these activities is given in Tables 4 and 5, for elementary and intermediate schools. Figures 5 and 6 indicate schematically the size of the playing fields required for an elementary

(continued page I-51)

TABLE 4

ELEMENTARY SCHOOL SITE SIZES

No. of Pupils	Amount of Play Space	Area of 2-Story Building[1]	Parking[2]	Circulation of 10%	20 Foot Setback	Total Space	Acres
700	109,300	26,250	8,700	14,425	30,240	188,920	4.5
550	89,300	20,600	7,200	11,710	27,120	155,930	3.6
350	59,300	13,125	5,100	7,752	21,840	107,120	2.4

1. Computed at 75 square feet per pupil.
2. One 300 square foot space per classroom plus five for administrative staff, custodial, and service personnel.

TABLE 5

JUNIOR HIGH SCHOOL SITE SIZES

No. of Pupils	Amount of Play Space	Area of 2-Story Building[1]	Parking	Circulation of 10%	20 Foot Setback	Total Space	Acres
800	162,500	44,000	12,000	21,850	37,520	277,870	6.3
600	162,500	33,000	9,000	20,450	36,320	261,270	5.9

1. Computed at 110 square feet per pupil.

FIGURE 5

THE ELEMENTARY PLAY AREA

Total Area = 89,300 sq. ft.

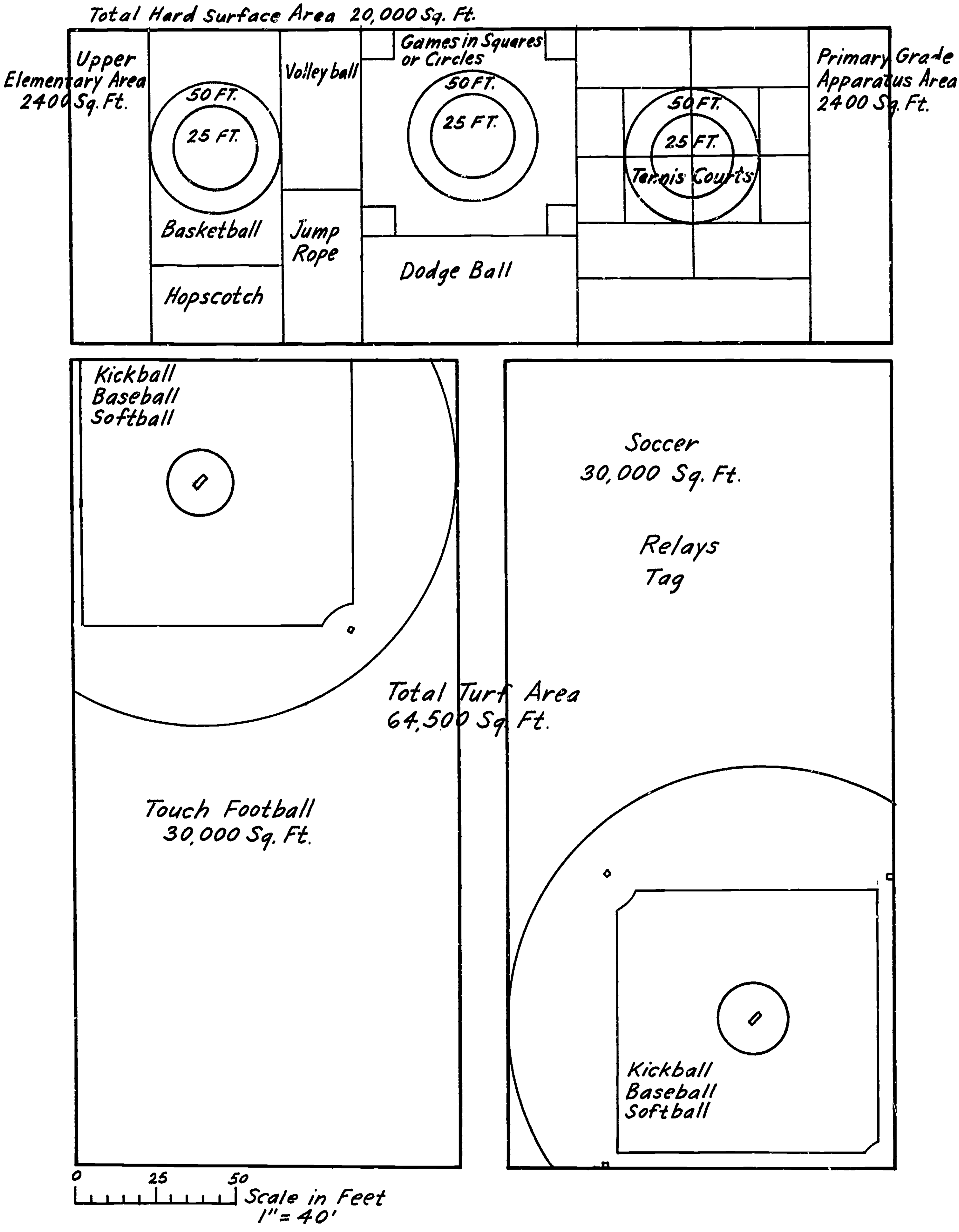
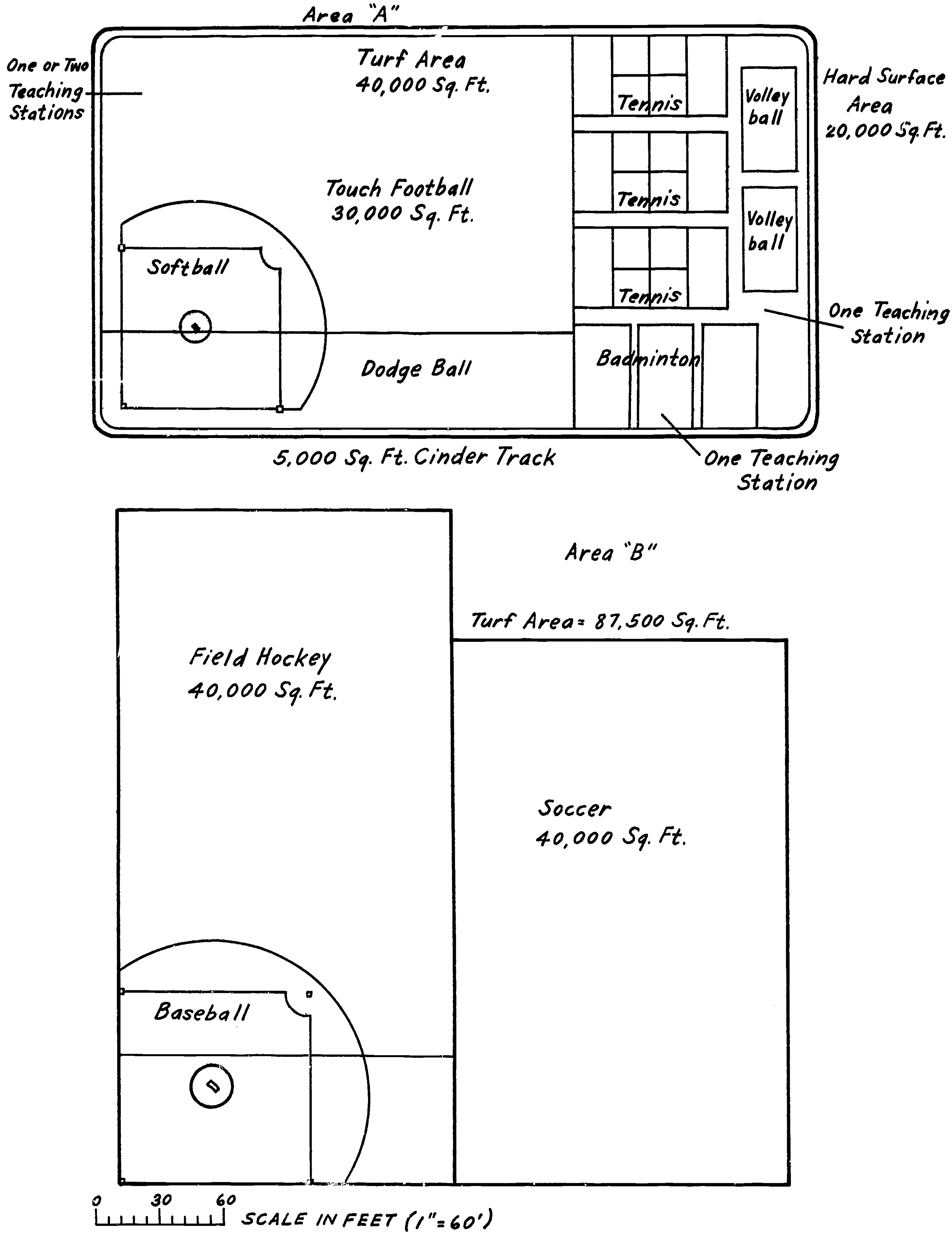


FIGURE 6

INTERMEDIATE SCHOOL SITE

Total Area = 162,500 sq. ft.



school of 550 pupils and for an intermediate of 1,000 pupils.

The site of the proposed city-wide campus high school requires 30 acres, conveniently near the rapid transit system. While this would provide some playing fields for the physical education program conducted during the school day, it is not anticipated that it would be possible to provide enough area for the usual interscholastic games. And since part of the program of the campus high school means that the various houses - or groups of houses - can compete with each other as well as with other high schools throughout the city, it is important to continue the policy of using the various school boy stadiums, such as in Franklin Park and East Boston, for the interscholastic program to complement the day-to-day space on the individual high school sites.

While the sites suggested here are minimum, they still represent a significant factor in the cost of the school building program. It seems important, therefore, that new schools be located on or near playgrounds so that joint use can be made of these facilities. It seems unreasonable to provide play space for schools and separately to provide after-school and summer playgrounds. The problems of jurisdictional responsibility between school and park departments are common to most communities, but they can and must be resolved in the best interest of the community so as to result in the maximum use of these spaces.

In no sense can the typical suburban school design with its sprawling one-story layout, attractive as it is in many respects, be judged appropriate for the city school. And in computing site requirements for this study, the assumption has been made that all except the smallest schools will be two-story units. By the judicious location of schools near playgrounds and by locating schools in phase with the urban renewal program, space can be made available more economically for both school and community use.

(4) School Size

In general, elementary schools for grades K-5 have been recommended which consist of three classrooms per grade, together with two kindergartens, for a combined pupil capacity of 550. In some densely populated areas, where sites are very limited, schools of four classrooms per grade are recommended, which, with two kindergartens on half-day sessions, would have a capacity of 700 pupils. Conversely, there are areas of the city where geography and distance, natural barriers and man-made hazards, make such large sizes unwise. This is particularly so in certain southern parts of the city: Dorchester, Hyde Park, Roslindale, and West Roxbury. It is also the case in parts of Brighton, and even in East Boston. The problem is not one solely of geography and traffic hazards. It is related to the relatively low density of public school children in those parts of the city where there are large parochial schools. The result is that the area which an elementary school of three classrooms per grade can serve is very extensive. It has been found necessary, therefore, in certain areas to recommend smaller schools. This appears preferable to recommending transportation as a general policy for the schools in Boston, reserving this solution as a temporary expedient for particular situations of overcrowding or temporary congestion.

It is of course impossible in a city such as Boston to locate all schools so that no children will be presented with hazards as they go to and return from school. Indeed, the use of hazards as boundaries would result in the need for a school building on many additional residential blocks in the city. Since this condition exists and cannot be resolved completely, either by anticipating or controlling school enrollments, the preferred course of action is to attempt to provide safe access to schools by police supervision or traffic control.

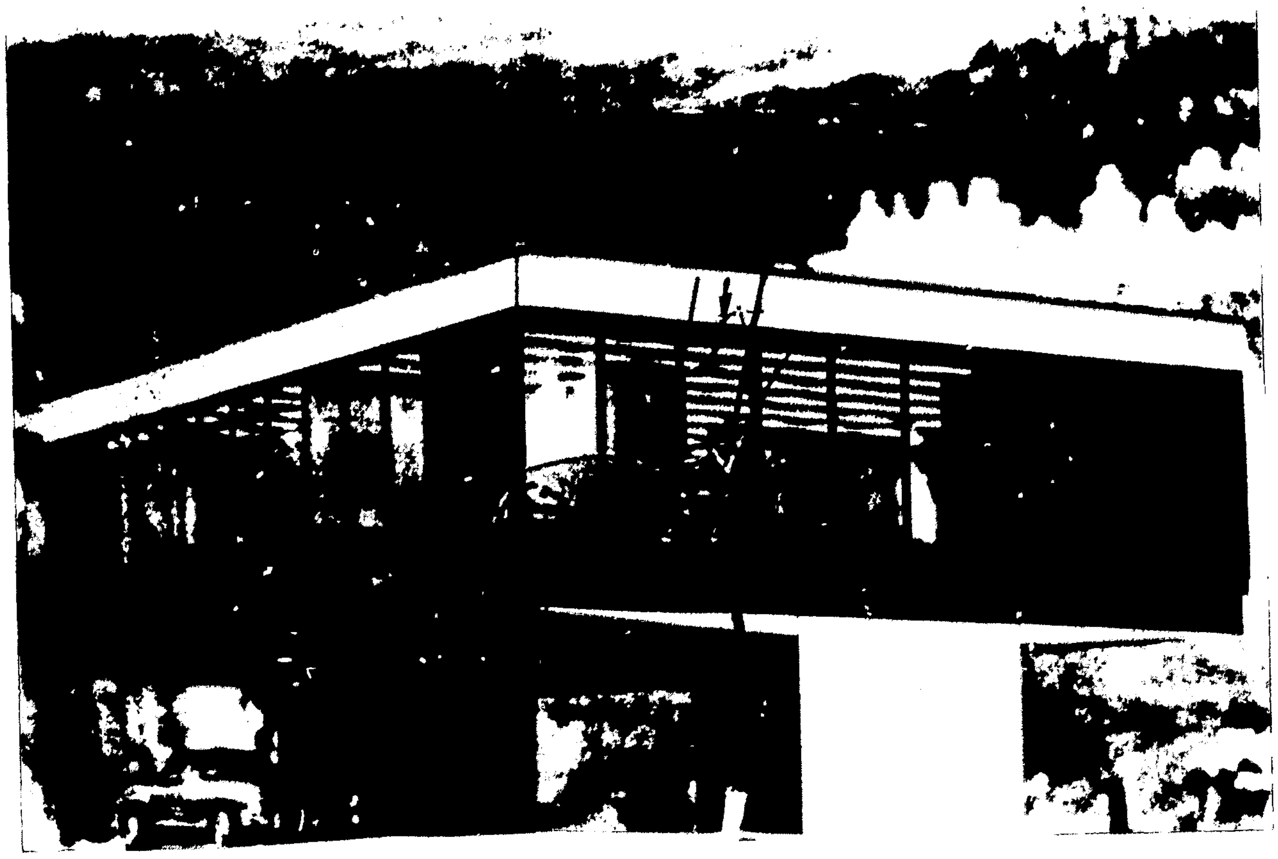
In a number of recommendations where schools of 350 have been indicated, it is with the expectation that future growth will require an additional space for 200 or more pupils. But to avoid overbuilding, it is more economical to carry out the construction in two stages. Where such growth seems indicated, school sites should always be selected with future expansion of this nature in mind. Conversely, where additional school facilities are needed, and it is necessary to maintain the existing older school for some years, a free-standing addition should be constructed which in no way ties in with the existing structure except perhaps for its heating system and an access corridor. In this way it is possible later to abandon the existing school and then to integrate in an attractive and efficient fashion the free-standing addition with a new and complete structure. Contemporary school design is quite incompatible in most cases with the older schools and therefore no additions, except where other alternatives do not exist, should be directly attached to existing structures.

In many situations the process of urban renewal may accelerate the normal shifts of school population within the city. It would seem essential that Boston begin to explore the possibility of taking advantage of a recent breakthrough in the design of the schoolhouse - the building that can serve if necessary as a permanent schoolhouse of high quality but which can also at a future date be demounted and moved to another place where it could be of greater use.

Thus, if Boston were equipped with a number of these demountable buildings, temporary jumps in a particular school's enrollment could be handled by the erection of demountable, pre-fabricated units as satellite school facilities rather than by the standard recourse to double sessions or redistricting. Similarly, if a school with such satellite facilities should find itself with extra space on its hands, the demountable facilities can be taken down and moved to another school that has become overcrowded.

Several of the major cities in the United States, including Los Angeles and Chicago, have already instituted this kind of flexible school building system. Pittsburgh, too, is currently exploring some of the more advanced methods of demountability.

Here are examples of two such school buildings. The first is a metal and glass building placed on steel pylons so that the space underneath (particularly if it happens to be playground space) remains usable.



Here is another such design, this one now existing in prototype form on the MIT campus in Cambridge.

These two buildings, as is the case with most of the other new systems of this type, are not "temporary", "Quonset hut" structures, but permanent buildings that are also designed with the idea that they may be taken apart, moved, and put back together on another site. Such a design goes a long way towards relieving a city of the dangers of over-building, under-utilization, double sessions, and children housed in temporary, unsuitable quarters.

These problems all city school systems encounter; they are underscored where urban renewal programs inject new elements of uncertainty into housing and enrollment patterns. It is strongly recommended, therefore, that Boston explore the possible contributions such building systems might make to their relief.

Chapter IV

THE COST AND FINANCING OF THE PROGRAM

An estimate of the cost of the recommended program involves a computation of both the cost of constructing and equipping each school and the cost of acquiring land. Since Boston has built very few elementary schools and no junior or senior high schools in recent years, the Massachusetts state-wide experience must be taken as the base for establishing estimates of school construction costs. Table 6 shows the state averages of elementary, junior, and senior high school costs for the most recent three-year period. These costs include all charges for construction, equipment, site development, and fees. They do not include the cost of land acquisition or interest payments.

Experience in the state of New York shows that state averages must be increased by 10 per cent for the higher costs of metropolitan areas. Applying this percentage increase to the Massachusetts averages yields costs of $1,956 per pupil for elementary schools, $2,430 for junior high schools, and $2,757 for senior high schools. The corresponding state averages for New York metropolitan areas are $1,900, $2,500, and $2,700. It seems reasonable, therefore, to use $2,000, $2,500, and $2,750 as the unit cost figures for estimating the total cost of the program.

TABLE 6

MASSACHUSETTS PER PUPIL SCHOOL CONSTRUCTION COSTS

Year	Elementary	Junior High	Senior High
1958-59*	$1,833	$2,692	$2,852
1959-60*	1,611	2,050	2,442
1960-61	1,891	1,886	2,224
1958-61 Average	$1,778	$2,209	$2,506
110% of Average	$1,956	$2,430	$2,757

*Corrected for construction cost increases by Engineering News Record Construction Index.

The Cost of Construction

The principal factors which were considered in determining the phasing of the construction program between now and 1975 were: (1) the need to build particular schools by a particular year in order to meet anticipated pupil enrollment increase; (2) the need to reduce the lag and abandon the poorest buildings at an early date; (3) the desire to phase the cost of the program on as even a basis as possible.

The urgency of the need for new buildings, together with the provision of additional space for anticipated growth, has limited the application of the third criterion. The program therefore calls for the completion of $32,650,000 of new construction between now and 1965. From a high of $21,290,000 in 1965 - the year which includes the construction of the first unit of 3,100 pupils for the comprehensive campus high school - the cost of the schools to be constructed in any one year drops to a low of $700,000 in 1974.

The total cost of the schools recommended for construction between 1964 and 1975 is $96,630,000 (Table 7).

TABLE 7

THE COST OF THE BUILDING PROGRAM
(IN THOUSANDS OF DOLLARS)

Year Schools Completed	High Schools	Elementary & Intermediate Schools Within Renewal Areas	Elementary & Intermediate Schools Outside Renewal Areas	Total Elementary and High Schools
1964		$6,440	$4,920	$11,360
1965	$8,500	9,260	3,530	21,290
1966	500	7,030	5,010	12,540
1967	8,250	3,500	820	12,570
1968	2,200	6,870	1,620	10,690
1969	2,200	1,860	1,220	5,280
1970	2,200	3,150	3,350	8,700
1971		1,800	2,500	4,300
1972		1,100	2,300	3,400
1973		2,200		2,200
1974		700		700
1975		700	2,900	3,600
Totals	$23,850	$44,610	$28,170	$96,630

Financing the Cost of Construction

While the cost of the schools to be completed and opened each year is given in Table 7, the actual commitment of funds varies from these totals, since school construction is normally financed through the issuance of 20-year serial bonds. Moreover, the sum of money borrowed each year will depend upon the amount of planning and construction work paid for annually since the city needs to borrow each year only the amount it has to pay out. This annual probable borrowing pattern will range from $200,000 for 1962 to a high of $16,100,000 in 1964, decreasing to a low of $1,450,000 in 1974 (Table 2, Appendix E).

The state contributes to the payment of this capital indebtedness through two financial aid programs. The first of these is the 30% grant made to the city under the State School Building Assistance legislation (Chapter 645 of the Acts of 1948 as amended). The state share of the approved cost of school construction ranges from $60,000 in 1962 to $4,830,000 in 1964, with smaller amounts in each subsequent year. The total state school building aid amounts to $28,988,000 (Table 2, Appendix E). Just as the municipal serial bonds are retired over 20 years, so the state contribution is paid in 20 equal annual installments.

The second program of state assistance is that provided under the state urban renewal legislation, which provides that "the total urban renewal grant for any approved Federally-aided project will not exceed one half of the local share of the contributions required from the municipality under the Federal capital grant contract." This state urban renewal legislation, Chapter 776 of the Acts of 1960, is relatively new, but based on legal opinion (that the intent of the Act is to grant 50% of the cost of the local share of urban renewal projects)the total amount of state urban renewal aid amounts to $40,000 in 1962, increasing to $4,873,000 in 1965 for a total of $27,075,000 for the entire program (Table 2, Appendix E).

The combination of school building assistance aid and state urban renewal grants reduces the total capital cost of the program to the city of Boston from $96,630,000 to $40,567,000. In addition to this sum, Boston is obligated for the entire amount of interest on any outstanding obligations.

Since the state urban renewal payments are also provided on a 20-year basis, it is possible to compute the net debt service to the city of Boston for the school construction program: this is given in Table 8 (derived from Tables 3 and 4 in Appendix E) where it can be seen that the year of maximum net debt service is 1973, at which time the annual payment is $4,092,000, decreasing regularly thereafter.

Assuming a 3.4% average interest cost,which is a reasonable rate in terms of current municipal bond experience, the building program will add 1¢ per thousand to the tax rate in 1963, increasing to a peak of $2.80 per thousand in 1972 and 1973. Thereafter, the rate will decline regularly for the remaining years of outstanding indebtedness (Table 8).

TABLE 8

STATE AIDS AND DEBT SERVICE
SCHOOL DESIGN, CONSTRUCTION, AND EQUIPMENT

Year	Gross Debt Service (in thousands of dollars)	State Aids (in thousands of dollars)	Net Debt Service (in thousands of dollars)	Impact on Tax Rate (in dollars)
1962	- - -	- - -	- - -	- - -
1963	17	5	12	.01
1964	593	200	393	.27
1965	1,933	675	1,258	.86
1966	3,235	1,153	2,082	1.43
1967	4,309	1,543	2,766	1.90
1968	5,079	1,900	3,179	2.18
1969	5,710	2,179	3,531	2.42
1970	6,109	2,349	3,760	2.58
1971	6,523	2,518	4,005	2.74
1972	6,698	2,615	4,083	2.80
1973	6,783	2,691	4,092	2.80
1974	6,792	2,763	4,029	2.76
1975	6,756	2,800	3,956	2.71
1976	6,781	2,843	3,938	2.70
1977	6,614	2,843	3,771	2.58

Land Acquisition

While the cost of construction is the major part of the total cost of carrying out the school building program, the cost of sites is also substantial. Careful consideration has been given to an economical program of site acquisition. Wherever possible, it is anticipated that schools will be located adjacent to Park and Recreation Department playgrounds, thus utilizing that playground space for the school's outdoor program. It has also been assumed that outside renewal areas the city will use vacant land or city-owned property if possible. Based on these assumptions, approximately 292 acres of land are required. Of these, approximately 170 acres are located in GNRP areas and 122 acres are in Improvement Areas (Table 9).

In the acquiring of school sites, urban renewal makes a major contribution to the economy with which the school plant of Boston may be rebuilt. When schools are located in urban renewal project areas, the School Department is able to purchase land for a school building at a substantial saving. The cost of the land, known as the "write-down" cost, is determined by the value of the land after demolition and clearance by the Redevelopment Authority. The savings will of course vary from place to place in the city depending both on the initial cost of the land and buildings as they stand in the open market, and the final determination of the value of the land after clearance by the Authority. In the Washington Park project, for example, the estimated savings range from $50,000 to $130,000 per acre in different parts of the project. Not only will

TABLE 9

SITE REQUIREMENTS FOR SCHOOL CONSTRUCTION

	AREA (in acres)		AREA (in acres)
Charlestown	5.0	Orient Heights	2.3
South End	19.5	Brighton	14.6
East Boston	8.4	Moss Hill	2.3
Downtown North	- -	West Roxbury	1.5
Downtown	2.5	Roslindale	13.4
Back Bay	2.3	Hyde Park	14.7
Parker Hill - Fenway	2.5	Dorchester	58.2
Jamaica Plain	19.8		107.0
Roxbury - North Dorchester	70.4		
South Boston	9.8		
	140.2		
Campus High School[1]	30.0	Trade-Coop School[1]	15.0
	170.2		122.0

1. Since locations for these schools have not been selected, the acreage requirements cannot be apportioned by district

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there be a savings in terms of write-down costs but in renewal areas state aid for urban renewal will cover one-half of the final local cost. Moreover, in these same areas, land which is used for playgrounds may be paid for entirely by the Federal government, thus costing the municipality nothing for such outdoor recreation facilities. Preliminary computations by the staff of the Boston Redevelopment Authority suggest that a reasonable estimate of the savings to the School Department can amount to at least $21,000,000. The School Department may be able to receive upwards of $3,750,000 for the 53 schools which will be abandoned in renewal areas when the new schools are built. It is further estimated that the School Department will collect another $250,000 for the sale of school properties outside renewal areas. Thus, up to $4,000,000 will be available from the sale of school properties to offset land costs.

In computing the impact of this program on the tax rate, site costs have not been included. It seems reasonably possible that the appropriation provided the School Department by Chapter 117 of the Acts of 1949 for land and new buildings may be sufficient to cover the necessary annual land purchases. This appropriation of 50¢ per thousand of assessed valuation amounts at present to $750,000 per year, and it is recommended that this amount be available to the School Department each year for the acquisition of the necessary land.

Conclusion

It is clear that a program of this magnitude can be achieved only when integrated carefully with Boston's urban renewal development. Indeed the two appear to be mutually interlocked. It can rightly be said that the school construction program cannot be consummated without the urban renewal program; while urban renewal itself needs the school program, not alone for its financial leverage, but primarily to help it succeed in its goal of making the urban community a satisfying and rewarding place in which to live.

While the visible activities of renewal and school construction are perhaps the most dramatic part of the rebuilding of the city, one must look to their consequences in the economic and social well being of the people for the ultimate test of their worthiness. The new schools will be judged by the programs of education which they house and make possible for the children and youth - and the adults - of the city. With purpose and imagination, these schools can strengthen their roots in the neighborhood and community, thereby giving and gaining strength.

Figure 3

CAMPUS HIGH SCHOOL
FUNCTIONAL ORGANIZATION & PHASING

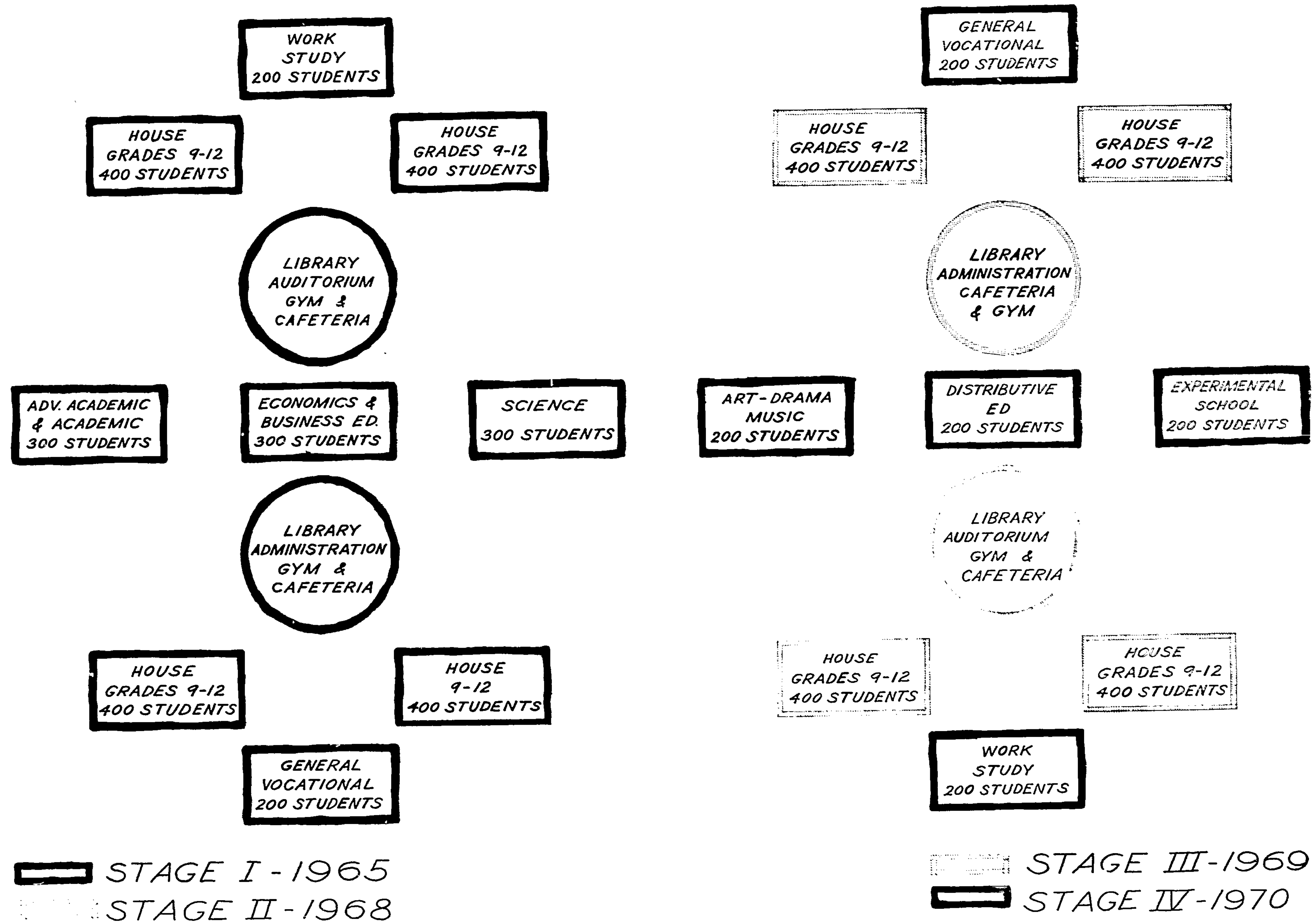
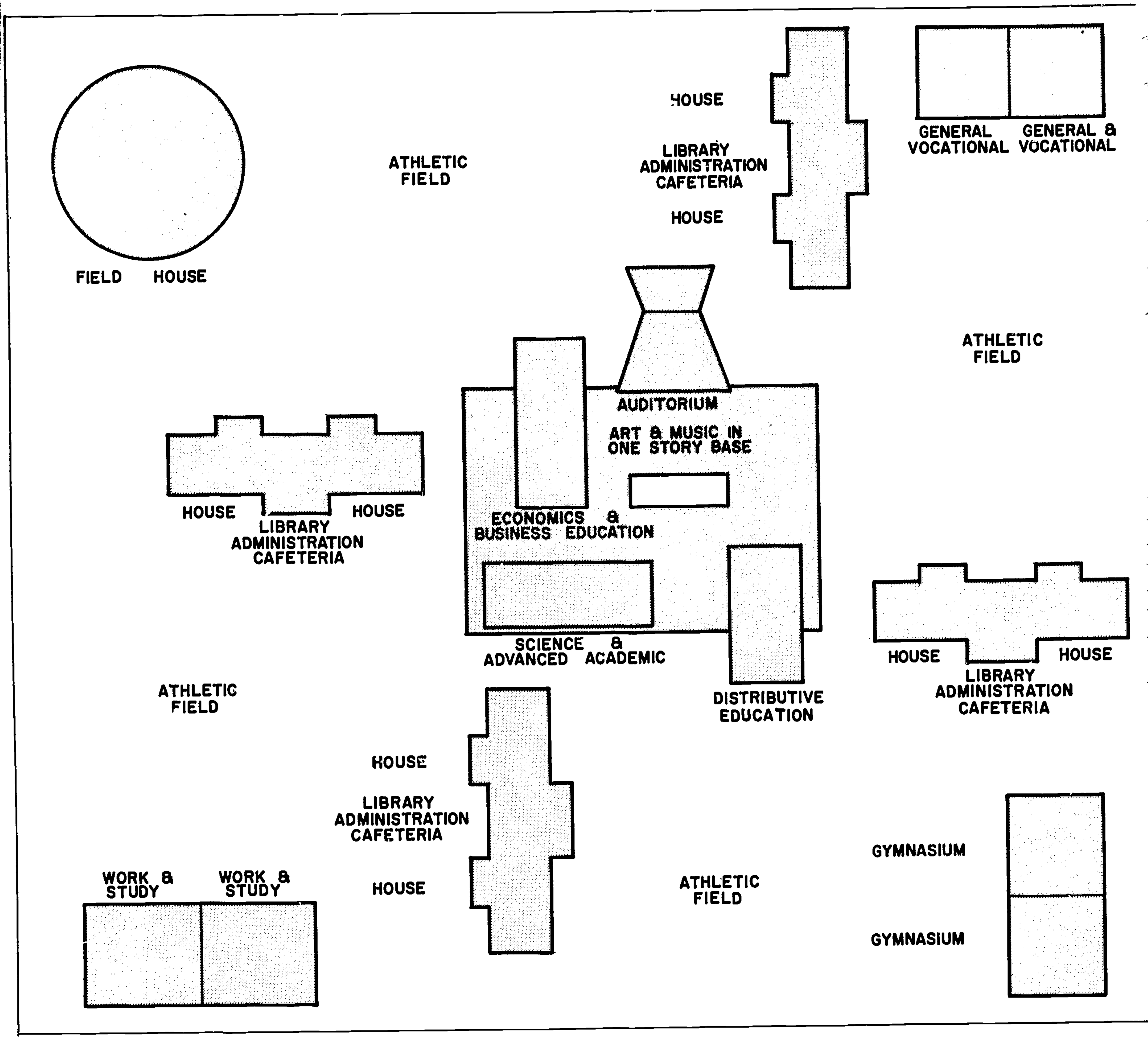
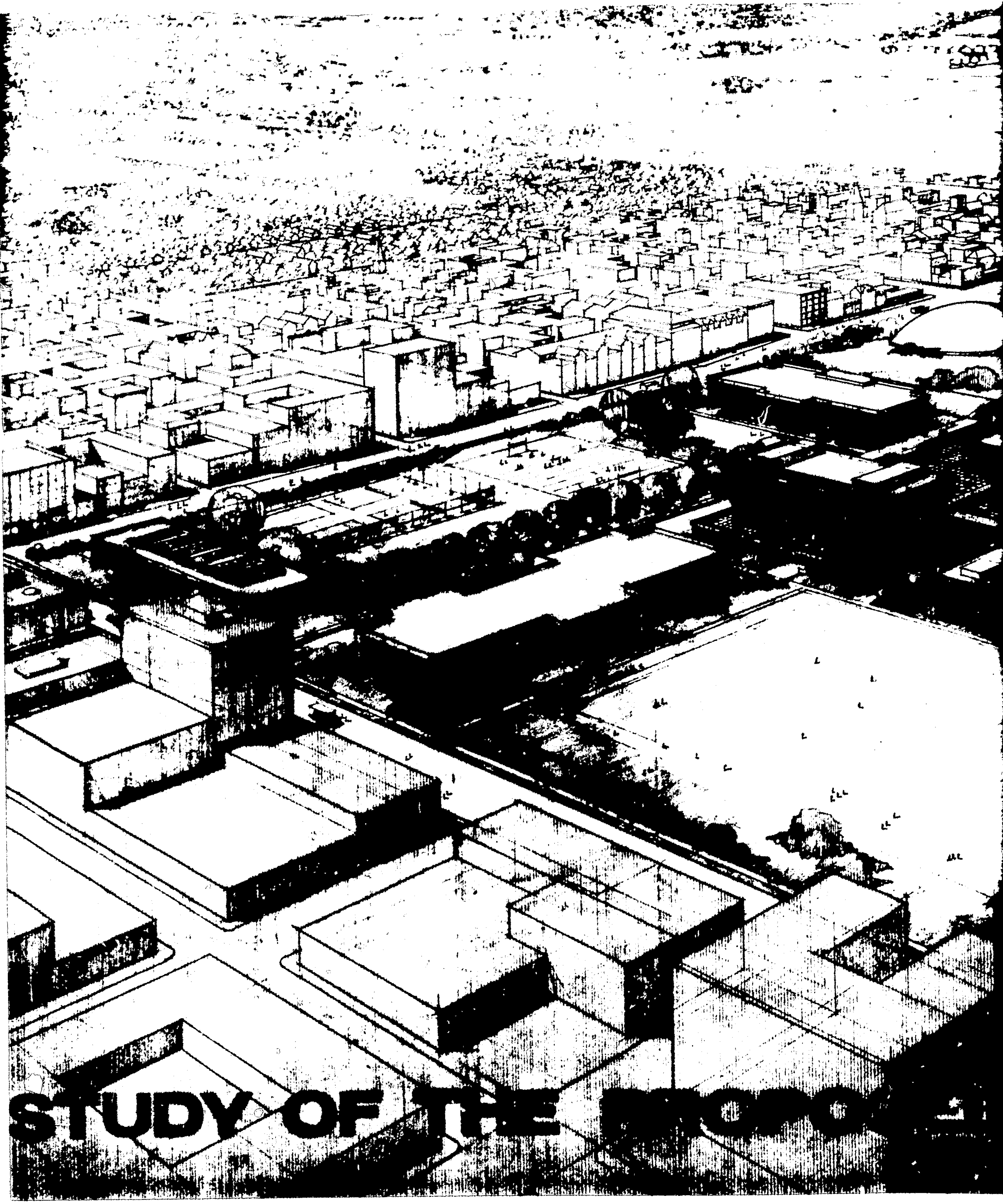


Figure 4



KEY TO PROPOSED CAMPUS HIGH SCHOOL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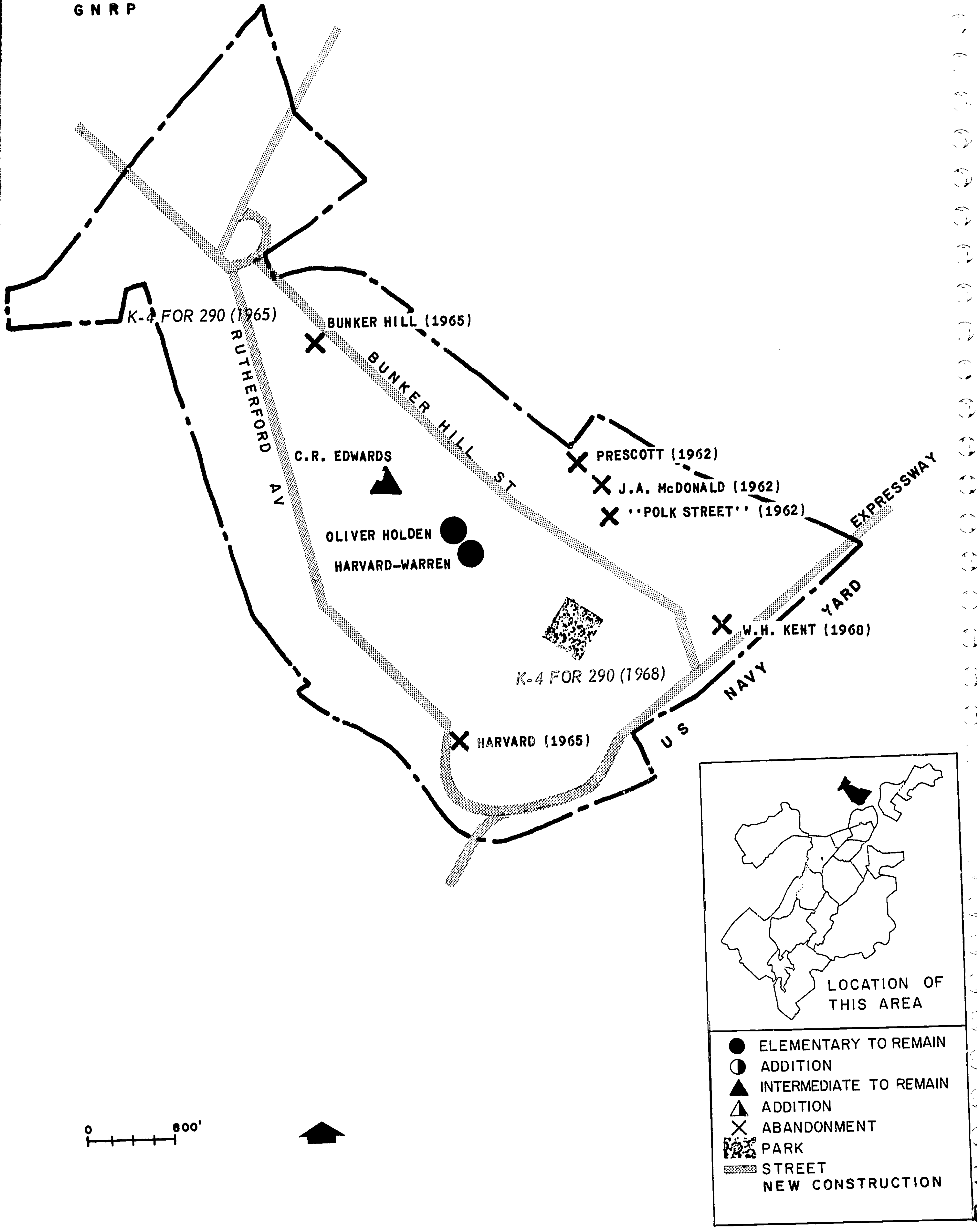
PART II

AREA REPORTS

CHARLESTOWN

GNRP



CHARLESTOWN

The residential island of Charlestown is cut off from the mainland of Boston proper and from East Boston by the Charles River and Boston Harbor, and from the neighboring communities of Cambridge and Somerville by the Boston & Maine Railroad yards and right of way. To the north across the Mystic River lie the industrial concentrations of Everett and Chelsea. This physical separation is further reinforced within Charlestown by a blanket of industry and commerce, including the MTA complex and traffic of Sullivan Square, the refineries and industry of Medford Street and the Mystic Wharf, the U. S. Navy Yard and the Hoosac Piers, the commercial areas of City Square and Front Street and the industry along Rutherford Avenue. From these low-lying non-residential areas rise the hills and houses of Charlestown with which the schools are concerned. This isolation has helped to create the strong sense of community and identification with their neighborhood which is characteristic of the people of Charlestown.

The population of this area had by 1960 decreased from approximately 25,000 in 1950 to 19,000 (exclusive of service personnel). There is a high vacancy rate in existing housing units, many concentrations of which have become seriously dilapidated and in need of the urban rehabilitation program now beginning to get underway. A major concentration of above-average density is located in the public housing project in the northeast. There are indications that this trend of decline has now been nearly arrested and that the base of the population is again broadening, with small increases predicted in the younger age groups over the next decade. (Charlestown in 1960 had a greater-than-average proportion of older age groups in its population.) These increases in numbers of children will affect the enrollments for which school buildings must be provided.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENT*

Grade	1960	1965	1970
K-4	1,140	1,220	1,340
5-8**	710	620	760

* figures rounded off to nearest ten

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

It will be seen in Table I that past declines in enrollments of intermediate and high school pupils are expected to continue for a short time before rising, while enrollments of the younger children are already beginning to increase. The effects of the three large parochial schools in the community and of those nearby have been considered. Obviously, in such a community as Charlestown any decisions of the parochial system to expand or contract will have an immediate effect on the projected public school enrollments shown in Table I. Since none of these three now houses a kindergarten, the public schools must plan to enroll and to build for a number of kindergarten children disproportionate to the upper elementary grades.

The 11 school buildings in Charlestown range from the new elementary arising at School and High Streets to the centenarian Prescott School it is due to replace. Only two classrooms in the J. McDonald School and four in O. Holden have been constructed at the elementary level in the twentieth century. Four of the eight elementaries date from before 1880 and one from the 1890's. On the opening of the new school, Prescott, McDonald and "Polk Street" will be closed; this still leaves out of five operating elementary schools two rapidly nearing their hundredth birthday and one built in 1895. These are all described in detail below.

C. R. Edwards, the junior high school is much newer, but is somewhat deficient in specialized facilities for a modern educational program, in maintenance and in outdoor recreational opportunities, because of its limited site. All schools, except the small O. Holden School, have been operating well-under their rated capacities because of the past drops in enrollments.

To achieve the most efficient use of the valuable buildings to be retained and the most economical new construction to allow the abandonment of those which have long outlived their usefulness, the study staff is proposing that Charlestown be organized on a K-4, 5-8, 9-12 basis. By housing the fifth and sixth grades in Edwards and the ninth in Charlestown High School, these buildings may be filled with sufficient numbers, and the advantages of modern educational programs may be afforded these pupils.

This reorganization may be effected as follows: In 1963 there should be room to house the entire sixth grade in Edwards. Two years later when the opening of the city-wide school allows Charlestown to admit some ninth graders and the rest to be absorbed in the city-wide high schools, it will be possible to enroll all the fifth grade as well, leaving Edwards as the community 5-8 intermediate school with three special classes for this age group. All other schools will now be organized as K-4's. (It is assumed that the O. Holden building will be effectively operated as an integral part of the new Harvard-Warren elementary.)

Also in 1965 it is recommended that a new K-4 school to house 290 pupils and one special class (two rooms per grade plus one kindergarten) be opened in the vicinity of the present Bunker Hill School. This, in conjunction with the reorganization, will allow the abandonment of both the Bunker Hill and Harvard schools.

In 1968 a second such school for 290 pupils and one special class should be opened in the vicinity of the old Frothingham School site (now closed) which will allow the closing of W. H. Kent and the accommodation of the modest growth at this level. These schools will now all be operating efficiently at or near their capacities and will be well-located to serve population concentrations. If growth continues in enrollments beyond 1970 as the result of the successful rehabilitation program or for other reasons, both of these two recommended schools are of such a size as to warrant future additions.

It may be noted here that the present site of Prescott, J. A. McDonald and the "Polk Street" schools has been recommended for use as a field house to improve the physical education facilities of Charlestown High School and the Charlestown community in conjunction with the proposed waterfront playfields and park between Medford Street and the Little Mystic Channel.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity
1965	1	K-4	290
1968	1	K-4	290

SUMMARY OF SCHOOLS TO BE ABANDONED

Bunker Hill School: K-6

Built in 1866; 3 1/2 stories; Type IV; brick exterior
8 classrooms and 2 kindergartens @ 900 sq. ft.; 1 sewing room on second floor @ 540 sq. ft.

Capacity: 340

Although recently repainted inside and out, and although each room opens directly onto a fire escape, thus minimizing the danger inherent in its height and wood frame construction (including wooden staircases in a central stairwell), no amount of work could rejuvenate this plant to meet present standards. Sections of the building are sagging, and there is evidence of water penetration. Window sash are loose and woodwork is rotting, although some repairs have been made. Old boilers (1909) are coal-fed by hand and boiler room ceiling beams are protected only by a thin metal shield. Toilet rooms are dismal, furnished with antique slate urinals and drinking fountains in combination with sinks. Because of the age and structural condition, no further expenditure of funds is warranted to improve even these deficiencies, thus, the building should be abandoned.

Harvard School: K-6

Built in 1871; 3 1/2 stories; Type IV; brick exterior
9 classrooms, 1 kindergarten, 1 speech improvement room, 1 sewing room on third floor, and 1 shop on first floor @ 900 sq. ft.

Capacity: 350

The school is located at the bend of heavily-traveled Rutherford Avenue as it curves towards City Square. It has a wood frame interior with wooden stairs stretching its full height from the basement toilets to the third floor classrooms and auditorium. The toilet rooms were modernized in 1950, but elsewhere, rooms are dark with old paint, stains of old leaks, substandard lighting, worn-out blackboard slates, and no mechanical ventilation. Although new boilers were installed in 1948, they are still coal-fired and designed to be fed by hand.

While this is a reasonably sound structure which has had some recent necessary repair (exterior woodwork is still badly in need of paint and has begun to rot), no further expenditures can be warranted due to its age and non-fire-resistive construction and design.

William Kent: K-3

Built in 1895; 2 1/2 stories; Type IV; red brick exterior
4 classrooms @ 770 sq. ft.; 2 kindergarten rooms @ 770 sq. ft.;
1 health room; 1 teachers' room.

Capacity: 200

The Kent School is a small structure located in the shadow of the massive, towering, and noisy Mystic River Bridge. It is directly adjacent to a public housing project and opposite the Boston Navy Yard. In addition to its cramped location on a heavily-traveled intersection, this building has numerous deficiencies which make it unsuitable for school use.

While the major staircases have treads of steel, several stairways leading to the playground are wooden. Much of the building exterior is chipped, cracked, and in need of repointing and painting. Window frames and sills are dried and cracked. Dampness in the basement area has caused deterioration of the wood and plaster of the boiler room ceiling, crumbling of mortar and peeling paint.

Interior walls and ceilings are cracked and checkered, artificial lighting is limited, and structural deficiencies are indicated by heavy iron braces between inner and outer walls of the cloakrooms. Sanitary conditions in the basement toilets are difficult to maintain at a satisfactory standard because of the inadequate ventilation, cracked floors, and obsolete fixtures.

Because of its physical disabilities and the character of the surrounding area which limits this site, a new location is needed for a modern building which can serve a greater number of Charlestown children, and this building should be abandoned as soon as possible.

James A. McDonald ("Polk Street"): K-3

Built in 1876; 2 1/2 stories; Type IV; red brick exterior
4 classrooms @ 780 sq. ft.; 1 classroom and 1 kindergarten @ 820 sq. ft.; 2 play areas in basement, combined teachers' room-health room.

Capacity: 190

This building, originally and still unofficially known as the "Polk Street School," is part of a complex also containing the Prescott and an auditorium-heating plant structure which, though connected physically only to Prescott by a hanging corridor bridge, is named "McDonald." All of these structures are located on a site just across Polk Street from the Charlestown housing project and adjacent to Bunker Hill cemetary.

Because it is hemmed in by Prescott and the auditorium, natural lighting is deficient on the western and southern sides of the building. There is no artificial ventilation except in the toilet rooms, whose location in a dark basement with porous composition floors, render ventilation essential. In its worn, wooden flooring and stairs and its wood frame interior, the school gives mute evidence of its venerable design and facilities which were constructed in the year George Custer fell at the Little Big Horn.

The long-deferred painting, pointing, patching, and parallel refurbishment would appear to be an uneconomical investment now and abandonment of the "Polk Street School" should be considered imminent.

James A. McDonald ("Prescott Annex")

Built in 1911; 2 1/2 stories; Type IV; red brick exterior
2 classrooms @ 650 sq. ft.; 1 auditorium

Capacity: 50

This part of the McDonald is essentially an auxiliary building to Prescott and the "Polk Street" schools. Besides the boiler room, administration offices and auditorium which serve the other two units, it holds two classrooms utilized by Prescott and reached from that building by passing through classrooms to the three-story corridor-bridge.

Outside walls are cracking slightly, window frames and doors lack paint, interior walls and ceilings are cracked and show evidence of leakage. Wooden floors in rooms and corridors and wooden stairs are badly worn. The two small classrooms have wide, dark spaces between their windows and are ill-lit. The two 1910 boilers are still coal-fired by hand and do not satisfactorily heat the far reaches of the three buildings.

The continued existence of this structure apart from the other two cannot be justified, but even on its own merits, it would be uneconomical and impossible to renovate so as to achieve modern educational and safety standards. Fortunately, it is already being replaced.

Prescott: 3-6

Built in 1857; 3 1/2 stories; Type IV; painted brick exterior.
11 classrooms and 1 home economics room @ 825 sq. ft.

Capacity: 330

As the main building in the Prescott-McDonald complex, the Prescott shares all the defects of the other two. Exterior walls, from which paint applied in the distant past has largely flaked away, need pointing and weatherproofing. The basement has paint peeling badly; its mortar is crumbling. The toilet rooms which are located here are dark and malodorous, stained and poorly appointed. Steel posts from cellar to attic are necessary to brace the creaking and worn wooden staircases. Wooden floors of corridors and classrooms are similarly worn. The dust on the walls is accented by leakage stains. Ceilings also are cracked and show signs of leakage as well as evidence of recent patching. Windows are few, narrow, and separated by wide expanses of black slate, while artificial lighting is inadequate.

It would appear that since Boston has had over a century of hardy service from this building, the City has long since recovered its investment and the Prescott should be disposed of soon.

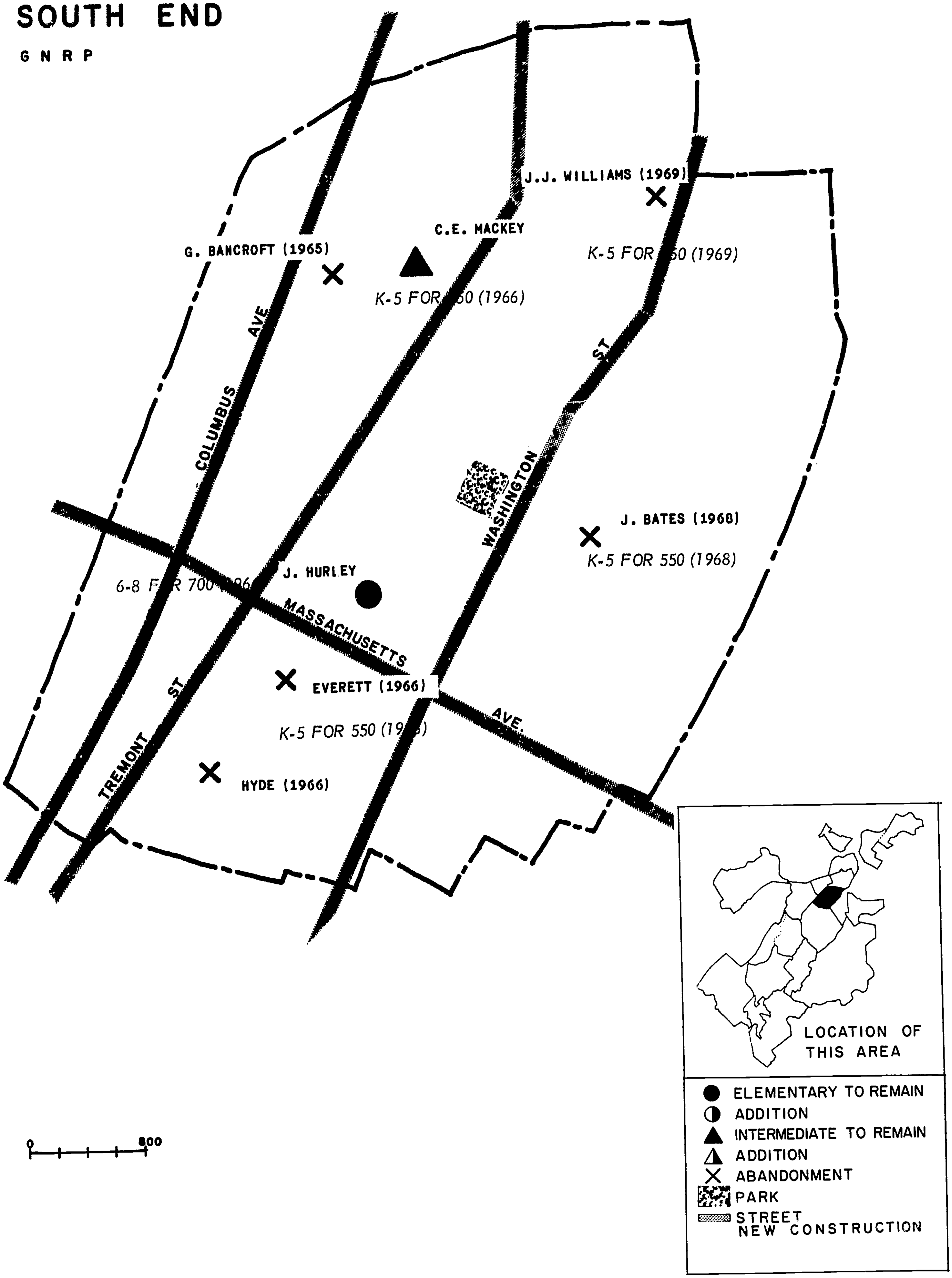
TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	K.G.	Other	Recommendations
Bunker Hill	K-6	340	1866	IV	3½	8	2	1	Abandon 1965
Harvard	K-6	350	1871	IV	3½	9	1	3	Abandon 1965
Harvard-Warren	In Const.	670	1962	I	2	19	2	2	Retain as K-4
J.A. McDonald	-	50	1911	IV	3½	2	0	0	Abandon 1962
"Polk Street"	K-3	190	1876	IV	2½	5	1	0	Abandon 1962
Prescott	3-6	330	1857	IV	3½	11	0	1	Abandon 1962
O. Holden	K-2	135	1927	I	1½	3	1	0	Retain with Harvard-Warren as Annex
W.H. Kent	K-3	200	1895	IV	2½	4	2	0	Abandon 1968
C.R. Edwards	7-9	880	1932	I	3	26	0	13	Retain as 5-8

SOUTH END

GNRP



SOUTH END

The South End is a densely populated residential area near the central core of the city. The area is bounded by the Boston & Albany Railroad, the Southeast Expressway, and the proposed inner belt. Six busy east-west arteries cross the South End dividing it into elongated strips. The north-south traffic pattern is hindered by the presence of numerous small streets, which intermittently cross the major east-west arteries. Massachusetts Avenue is the major north-south artery.

Along the southern boundary are numerous institutional and industrial buildings, while the central and northern sections are characterized by three and four story brick apartment dwellings with commercial enterprises lining the east-west streets. Very little park or recreational space exists in the South End. Blight and deterioration are prevalent in many buildings, particularly in the section west of Massachusetts Avenue and in the Castle Square region.

The school buildings located in the South End are generally old and obsolete educational facilities, lacking most of the specialized spaces required by a contemporary program. Numerous South End pupils attend school outside the area. The Hurley and Mackey Schools, however, are modern buildings which should serve the area well for many years to come. The five remaining buildings are judged to be such poor facilities that they should be abandoned as soon as possible. Their abandonment should be closely coordinated with the Urban Renewal Program as it develops.

The present organizational pattern of the schools should be continued through 1965. By then, however, additional school facilities will be needed and the development of a K-5, 6-8 grade organization would serve the area more effectively and be consistent with the city-wide pattern.

A K-5 school for 550 pupils should be constructed on the present Rice site or nearby to be available for use in 1966. When this school is completed, the Bancroft School should be abandoned, and the Mackey School used mainly to house increased numbers in grades 6-8. The three-room elementary wing of the Mackey should be continued as a K-2 school.

The total 6-8 enrollment cannot be accommodated solely in the Mackey School, and a new intermediate school for 700 pupils and four special classes should be constructed for use in 1966. It is anticipated that 300 pupils from Back Bay, the Fenway and Downtown will attend intermediate school in the South End. The additional school will be sufficient to provide for the projected grade 6-8 enrollments beyond 1970.

The section west of Massachusetts Avenue is served by Hyde and Everett Schools. Considerable demolition is currently underway in this section and the blighted condition of many of the remaining buildings suggests that more demolition will occur. A single school should be sufficient to provide for the K-5 population in this section after 1965. A new school for 550 pupils should be constructed and ready for use by 1966, and the Hyde and Everett schools should be abandoned as soon as this building is completed.

By 1965 the Urban Renewal Program should be sufficiently advanced to permit a review of the building capacities needed to replace the J. Bates School and the J. J. Williams School, In 1968 the Bates School should be replaced with a modern building. It is now estimated that a school for 550 pupils will be required. By 1975 the Williams School should be replaced with a school for 350 pupils. It may be possible to achieve this earlier by consolidation with a school also serving the South Cove, but this depends somewhat on the presently undetermined future of Castle Square. (See area report for Downtown.)

The South End population predictions are based on current land use. The Urban Renewal Program may significantly alter the population base and, consequently, affect enrollment predictions. It is important, therefore, to coordinate the building schedule closely with the Urban Renewal Program and to review the building capacities needed as the program develops. The inferior condition of the older buildings, however, leaves no doubt that they should be abandoned at the earliest possible date.

TABLE I

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity
1966	2	K-5	1,100
1966	1	6-8	700
1968	1	K-5	550
(by) 1975	1	K-5	350

SUMMARIES OF SCHOOLS TO BE ABANDONED

George Bancroft: 1-4

Built in 1870; 2 1/2 stories; Type IV; red brick exterior
8 classrooms @ 790 sq. ft.; 1 basement voting room @ 700 sq. ft.;
1 health room.

Capacity: 240

The Bancroft School is a small structure that has had some renovation in recent years. A peaked roof was replaced by a flat roof after a fire in 1954; the reduced space resulting necessitated the closing of the third floor. New lighting has also been installed in the classrooms. The Bancroft, however, should not be considered suitable for use for an extended period of time.

The interior construction, the stairs and stairwell are made of wood, thus the structure is basically non-fire resistive. The exterior of the building is cracking, deteriorating and in need of repointing. The window sills and frames are rotting. The classroom walls are cracking, show evidence of leakage and need painting. In addition, the building has no provision for special facilities.

The Bancroft shares a site with the Rice School which has already been abandoned for public school purposes. It would wise to demolish both the Rice and Bancroft buildings and to construct a new building to serve the pupils in this area.

Joshua Bates: K-3

Built in 1884; 2 1/2 stories; Type IV
7 classrooms and 1 kindergarten @ 770 sq. ft.; 1 playroom in basement @ 790 sq. ft.

Capacity: 250

To expend the funds necessary to upgrade this building seems unwarranted. The school system would still have a 78-year old, Type IV structure with wooden stairways, no special facilities, and a capacity of only 250. The Bates School has numerous other deficiencies including the following: the school grounds are small and need resurfacing; the exterior of the building is deteriorating and needs repointing; the window frames and sashes are rotting; the classrooms are drab and in need of paint; and the toilet facilities require a great deal of renovation. Provisions for a health room are insufficient, and specialized facilities desired in a modern school are completely lacking. Furthermore, the basement floor has settled considerably, indicating a possible unstable condition of the fill beneath the building. It is recommended, therefore, that the use of the Bates School be discontinued as soon as other planning considerations will permit.

Everett: 3-6

Built in 1860; auditorium and office addition in 1914; 4 1/2 stories; Type IV; red brick and stone trim exterior
11 classrooms and 2 sewing rooms @ 900 sq. ft.; 1 classroom @ 750 sq. ft.; 1 classroom @ 710 sq. ft.; 1 classroom @ 680 sq. ft.

Capacity: 360

The Everett has had a long history of honorable and hard service in the Boston school system. However, it no longer provides the structural standards suitable for a modern school. The exterior sandstone trim is crumbling and flaking, and the window frames and sills are rotting.

Much of the interior shows signs of dampness, especially the dark basement. The ventilation in the toilet rooms is not sufficient to dispel lingering odors trapped by damp and porous floors. While the heating system has been modernized somewhat by the installation of automatic oil burners, the plumbing remains obsolete. Artificial ventilation is non-existent in the building. Most classrooms have substandard lighting as a result of inadequate artificial lighting combined with badly-spaced windows which provide little natural light.

In addition to the wooden construction of the interior frame, the flooring and stairwells, which have required reinforcement with a steel post from top to bottom, are also of wood; these conditions are not acceptable for modern fire control standards. The sum of Everett's deficiencies suggests that this centenarian, which has well repaid its initial investment, should be abandoned soon.

Hyde: K-2, 6-8

Built in 1884; 3 1/2 stories; Type IV; red brick exterior
9 classrooms @ 930 sq. ft.; 1 classroom @ 780 sq. ft.; 2 kindergarten room @ 930 sq. ft.; 1 cooking room @ 930 sq. ft.; 1 sewing room @ 780 sq. ft.; 1 remedial reading room @ 700 sq. ft.; 1 administrative office; 1 teachers' room

Capacity: 400

This 80-year old structure which has been well-maintained for its age is located in an area of small shops. Less than a block away is a large public housing development; between the school and this project is an elongated plot of land where several tenements have been razed. Although the building has certain positive features, including rather large general-purpose classrooms, solid brickwork, and modern lighting fixtures in many rooms, its negative features cannot be overlooked. Hyde has an all-wood interior, several sagging support beams, and a third floor auditorium with a difficult egress route. Several fire doors are loose and rattle so badly that they are normally hooked shut, except when school is in session.

Toilets are located in the basement, a considerable distance from the classrooms. They are dark, ill-ventilated, and difficult to keep clean. Playrooms adjacent to the toilets are also ill-lit, dirty, and unsuited for recreational activities, while the outdoor playground area is exceedingly small. These defects taken together suggest that Hyde should be replaced soon.

John J. Williams: K-6

Built in 1913; 3 1/2 stories; Type IV
10 classrooms @ 600-650 sq. ft.; 1 kindergarten @ 900 sq. ft.; 1 sewing room

Capacity: 300

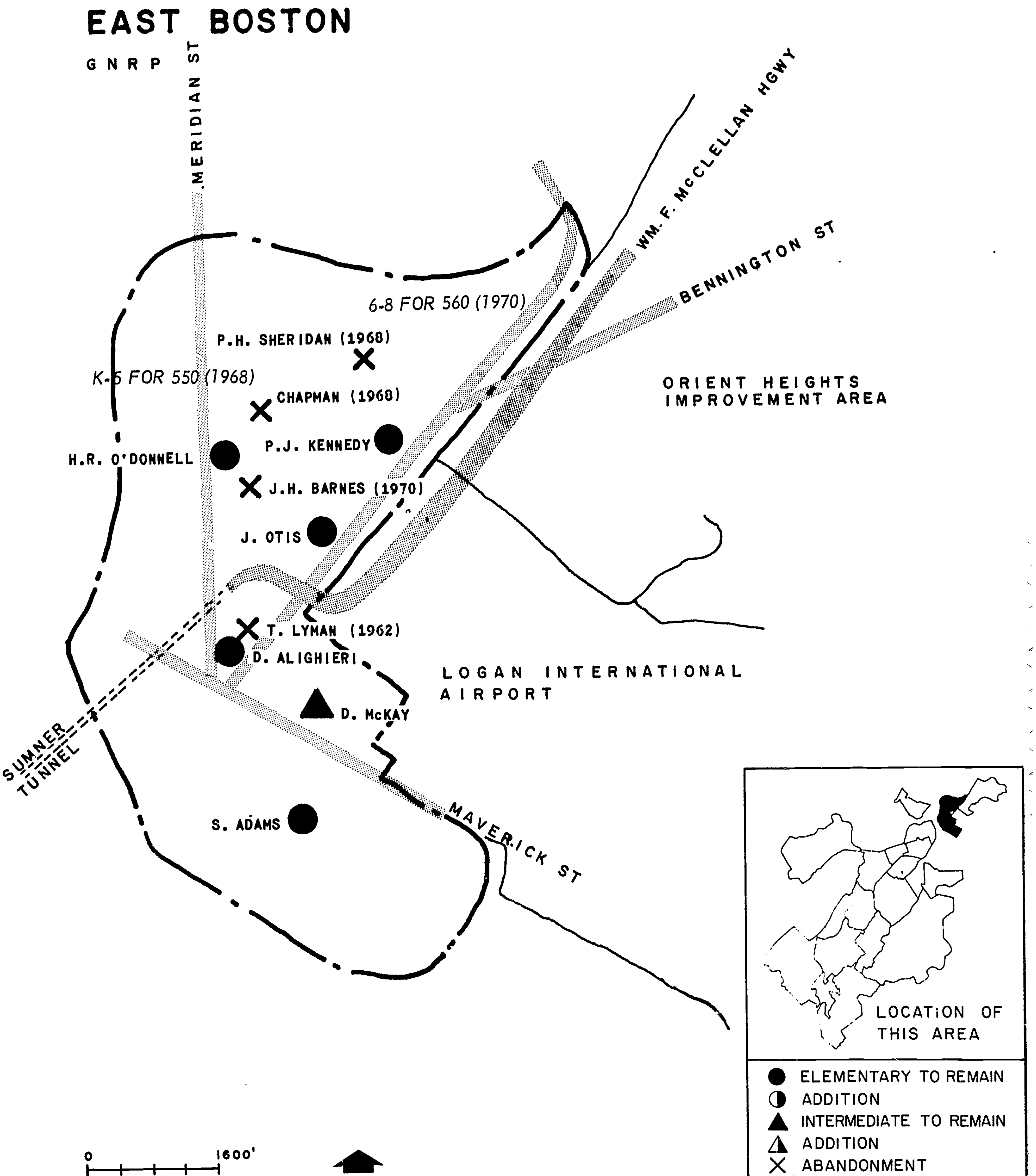
This school is located at the edge of a dilapidated section of the city and one block from a better residential area. Unfortunately, it has assumed the characteristics of its blighted neighborhood, i.e., deteriorating masonry and rotting woodwork. The rehabilitation of the Williams School would be a massive undertaking designed to include the following: repointing of masonry; replacement of window sashes; painting of all woodwork - exterior and interior; painting of classrooms; interior plastering; repairing leaking roof; complete modernization of toilet facilities; and correction of safety deficiencies.

Even with this rehabilitation, the Williams would still be a Type IV structure with no special facilities. There is now much activity (razing, site clearance, construction) in the vicinity of the building. It is, therefore, recommended that the Williams be abandoned in close coordination with the Urban Renewal Program.

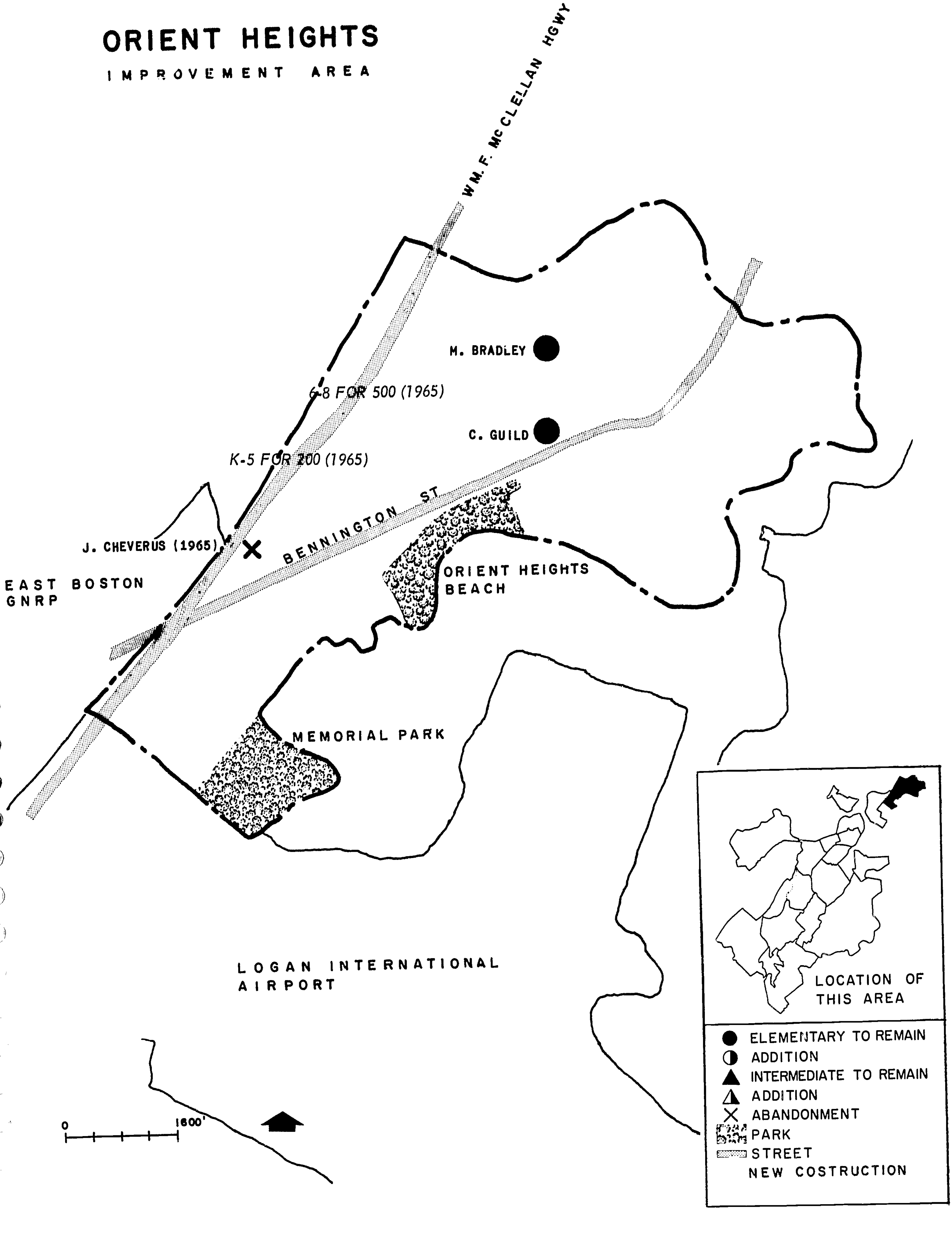
TABLE II

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
G. Bancroft	1-4	240	1870	IV	$2\frac{1}{2}$	8	0	0	Abandon 1965
J. Bates	K-3	250	1884	IV	$2\frac{1}{2}$	7	1	0	Abandon 1968
Everett	3-6	360	1860 1914	IV	$4\frac{1}{2}$	14	0	2	Abandon 1966
J. Hurley	K-6	580	1962	I	$2\frac{1}{2}$	16	2	3	Retain as K-5
Hyde	K-2 6-8	400	1884	IV	$3\frac{1}{2}$	10	2	3	Abandon 1966
C.E. Mackey	K-8	710	1958	I	$2\frac{1}{2}$	19	1	7	Retain as K-2, 6-8
J.J. Williams	K-6	300	1913	IV	$3\frac{1}{2}$	10	1	1	Abandon by 1969



EAST BOSTON
GNRP
MERIDIAN ST
WM. F. McCLELLAN HGWY
BENNINGTON ST
6-8 FOR 560 (1970)
P.H. SHERIDAN (1968)
K-6 FOR 550 (1968)
CHAPMAN (1968)
ORIENT HEIGHTS
IMPROVEMENT AREA
P.J. KENNEDY
H.R. O'DONNELL
J.H. BARNES (1970)
J. OTIS
T. LYMAN (1962)
D. ALIGHIERI
LOGAN INTERNATIONAL
AIRPORT
D. McKAY
SUMNER TUNNEL
MAVERICK ST
S. ADAMS
LOCATION OF THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION
0
1600'



ORIENT HEIGHTS
IMPROVEMENT AREA
WM. F. McCLELLAN HGWY
M. BRADLEY
6-8 FOR 500 (1965)
C. GUILD
K-5 FOR 200 (1965)
BENNINGTON ST
J. CHEVERUS (1965)
EAST BOSTON
GNRP
ORIENT HEIGHTS
BEACH
MEMORIAL PARK
LOGAN INTERNATIONAL
AIRPORT
0
1600'
LOCATION OF
THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW COSTRUCTION

EAST BOSTON AND ORIENT HEIGHTS

Originally several islands separated by marshy wastes of water and now several residential hills united by flatlands of commerce, industry and recreation, the East Boston peninsula, severed from Boston proper by the Chelsea River and Boston Harbor, has only one MTA and two automobile tunnels as physical ties to the rest of Boston. Thus, the solutions of East Boston's elementary and intermediate school and, to some degree, its high school problems are distinct from those in other parts of the city.

The concern of a school study is with the residential sections of the area, quite apart from the immense tracts occupied by Logan International Airport. These sections have been divided into two parts for renewal purposes. The first of these is the so-called General Neighborhood Renewal Plan Area which stretches from the harbor waterfront approximately half way to the Revere line. Beyond is the second, the Improvement Area of Orient Heights.

The boundary between the East Boston GNRP and Orient Heights is through an area of heavy traffic (Bennington, Chelsea, and Saratoga Streets) and past the ramps leading to and from the Callahan and Sumner Tunnels, North Shore, and the airport. The Boston & Albany and Boston & Maine Railroads, the Revere line of the MTA and bus ramps from the Day Square MTA station also intersect the boundary. The result of this maze of transportation facilities, insofar as school planning is concerned, is to create a highly effective school attendance barrier between the two parts of the peninsula, and it is necessary to deal with the problems of elementary and intermediate schools in terms of these two distinct areas because of such safety hazards. Efficient use of the available school buildings and the lessening of such hazards for older pupils, however, indicates that all of East Boston must be included in planning for high school enrollments.

East Boston High School, refurbished and repaired, will be large enough to house enrollments from grades 9-12 through 1970. The presence of surplus junior high school capacities in East Boston also makes it possible to implement at once the planned organizational scheme of elementary schools for children in kindergarten through grade 5, intermediate schools for grades 6-8, and a four-year high school.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	3,120	3,310	3,480
6-8	1,430	1,320	1,590
9-12	1,620	1,550	1,710

* figures rounded off to nearest ten; include all pupils living in area

The GNRP is an area which has experienced a steady decline in it's public school enrollments in past years. Indications are that this decline has ceased recently and that there will be a modest increase in the numbers of children who will attend elementary schools in the section through the year 1970. Organizing the public schools of East Boston as a K-5, 6-8, 9-12 system as early as September, 1962 promotes more efficient use of the Donald McKay, the Barnes Junior High School, and the East Boston High School.

In the section east of Central Square and south of Porter Street the large capacity and facilities of McKay make it possible to plan this building as a grade 6-8 intermediate school for 560 children and one special class, and to use the remaining part of its capacity for neighborhood elementary students including one or two special classes. McKay would become the focus of a school program for the section with students entering Samuel Adams, McKay, and Dante Alighieri in kindergarten, shifting from the latter to McKay in grade 4 and from the former to McKay when entering grade 6. This pattern of school enrollment, the net decrease between K-6 and K-5 schools, and current unused space will permit the abandonment in 1962 of Lyman, a substandard elementary school, through the consolidation of enrollments in the newer and more up-to-date buildings of the area.

In the remaining part of the East Boston GNRP, Barnes Junior High School should be abandoned and a new 560 pupil intermediate school with one special classroom constructed by 1970. In addition, a new elementary school for 550 pupils should be opened in 1968 in the section between Trenton and Condor Streets to replace Chapman and Sheridan. This school, as well as O'Donnell, Otis, and Kennedy, will feed into the new Barnes at grade 6.

The Improvement Area of Orient Heights extends from the attendance boundary referred to above to the city of Revere and Suffolk Downs race track on the extreme northern border of Boston and, except for the U. S. Navy tank farms, is a pleasant residential neighborhood. The area presently has three elementary schools: C. Guild, the new Bradley, and Cheverus. Some of Orient Heights' seventh and eighth graders attend the Cheverus, but the rest travel considerable distances to Barnes or McKay.

Cheverus should be abandoned in 1965 and a 200-pupil replacement for elementary pupils in grades K-5 constructed on a site more central to the residential sections served. To be built this same year, a new school for 500 pupils in grades 6-8 will house the enrollment increases of the area through 1970 and eliminate the necessity for students in those grades to leave the area for public schooling. Orient Heights may then reorganize on a K-5, 6-8 basis.

The Orient Heights Improvement Area still has potential for population and public school enrollment growth in as yet undeveloped land. Therefore, the separation of new construction to replace Cheverus into two parts allows flexibility in planning for expansion that might be waranted if enrollment growth continues beyond 1970.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Area
1965	1	6-8	500	Orient Heights
1965	1	K-5	200	Orient Heights
1968	1	K-5	550	East Boston
1970	1	6-8	560	East Boston

SUMMARIES OF SCHOOLS TO BE ABANDONED

Joseph Barnes: 7-9

Built in 1901; addition in 1931; 3 1/2 stories; Type I; buff brick exterior
30 classrooms @ 750 sq. ft.; 2 science rooms @ 900 and 630 sq. ft.;
6 shops @ 860-1,200 sq. ft.; 4 home economics rooms @ 610-960 sq. ft.;
1 typing room @ 950 sq. ft.; 1 gym @ 3,500 sq. ft.; 1 auditorium seating about 530 located on second floor

Capacity: 1,000

Although towering above its neighbors, this junior high school is severely hemmed in by the surrounding structures. Other than the ground on which it rests, the Barnes has no site at all and no nearby playground is available; thus, its program of physical recreation is severely limited. Within the building the small-sized, awkwardly-shaped gymnasium, limited locker space, and the absence of shower facilities do not make up for this deficiency. There are no library, music, or art rooms, and the facilities of the science rooms are limited.

Extensive water damage previous to recent repointing of walls and some leakage since, has affected interior walls and ceilings throughout; some plaster has fallen away from its lath. No paint has been applied inside or out for years, and some window sash have deteriorated so badly that they need replacement. Many windows are quite loose, rattle, and leak; in conjunction with the inoperative Johnson control system, this makes the building difficult to heat well and efficiently. The original building has no mechanical ventilation.

Interior lighting is substandard and this problem is accentuated by excessive light-darkness contrasts and glare in the classrooms. Wooden classroom floors and slate stairtreads are badly worn. Porous composition flooring in most toilet rooms make these hard to keep clean, sanitary, and odor-free. A few toilet units are still of an outmoded type. In addition, floors in the basement are cracked.

Although the building is basically of fire-resistant construction, much wood has been used in the interior finish of the older section. With its limited facilities and inflexible design, the Joseph Barnes is not well-suited for use as a modern intermediate school.

Chapman: K-6

Built in 1900; 3 1/2 stories; Type IV; yellow brick exterior
15 classrooms @ 900 sq. ft.; 1 special classroom @ 580 sq. ft.; 1 kindergarten @ 900 sq. ft.; 1 shop @ 780 sq. ft.; 1 sewing room @ 590 sq. ft.:
2 administrative offices; 1 teachers' room

Capacity: 490

The site of the Chapman is small for a building of this size and its surface is in poor condition. Structurally, the building needs some exterior masonry work, replacement of window frames, caulking and painting. There is evidence of water leakage in the foundation and through the roof. Ceilings needs plastering and painting where damaged by water leakage.

The heating system is fired with coal by hand. The ventilation and heat control systems are inoperative. Toilet rooms have outmoded, slate fixtures and drinking fountains are combined with sinks.

The third floor auditorium is not acceptable under modern standards for fire-safety design. There is an exposed electrical switchboard in a basement corridor. Satisfactory emergency egress via fire escapes seems possible from the lower two floors, thus abandonment of the building is somewhat less than urgent.

However, even if the building were renovated at substantial expense, it would still be a Type IV structure, and its use should be discontinued sometime in the next several years.

<u>John Cheverus</u>: <u>K-8</u>

Built in 1909; 2 1/2 stories; Type I; red brick exterior
14 rooms @ 680 sq. ft.; 1 kindergarten @ 670 sq. ft.; 1 sewing room @ 680 sq. ft.

Capacity: 350

The Cheverus covers a small site on the edge of a residential section of Orient Heights. It faces a heavily-traveled expressway which limits access to it from the west and south. The bulky design of the school, the spike fence surrounding it, the yard overgrown with weeds, plus a brick exterior in need of repointing, outside doors and windows in a dilapidated condition, and a combination of vandalism and neglected repair-work characterize the exterior.

On the inside the necessary repairs make a long list: new flooring is needed throughout the building; a complete paint job is needed in every classroom and corridor; second means of egress should be provided in several rooms; wooden partitions divide some spaces; corridor lighting is poor in all parts of the building; the mechanical ventilating system is inoperable; rotting walls show extensive leaks with resulting cracked plaster; and the auditorium should be completely renovated before it is used for instructional purposes.

The sum of its defects indicates that renovation would be expensive. Even then, the school would still be poorly located for most of the p' would serve from Orient Heights. Nor is there any forseeable w which the site could be expanded to provide sufficient area for physical education and recreation programs. The Cheverus should, therefore, be abandoned as soon as more centrally-located intermediate and elementary school facilities are constructed in Orient Heights.

Theodore Lyman: K-6

Built in 1869; 3 1/2 stories; Type IV; red brick exterior
10 classrooms @ 920 sq. ft.; 1 kindergarten @ 920 sq. ft.; 1 shop @ 920 sq. ft.; 1 third floor sewing room @ 530 sq. ft.; 1 third floor special room @ 530 sq. ft.; 5 basement playrooms @ 920 sq. ft.; 1 third floor auditorium, health room and principal's office.

Capacity: 350

The Lyman School is deteriorating, obsolescent, and no longer represents the type of structure suitable for use as a public school. The building has a wooden frame interior, wooden steps, and a third floor auditorium which is not in accord with modern fire-safety design.

Numerous signs of structural decay are evident. The basement walls and the classroom walls on other floors show evidence of considerable leakage. The window frames and sills are rotting. Steel supports have been installed to prevent the wooden stairs from further sagging. The plaster ceilings in the classrooms are cracked and show evidence of leakage.

The structure and physical condition of this nearly one hundred year old building demonstrate that renovation would not be economically sound or desirable. Its abandonment as soon as possible is recommended.

Philip H. Sheridan: K-6

Built in 1914; 2 1/2 stories; Type IV; red brick exterior
11 classrooms and 1 home economics room @ 600 sq. ft.; 1 kindergarten @ 740 sq. ft.

Capacity: 315

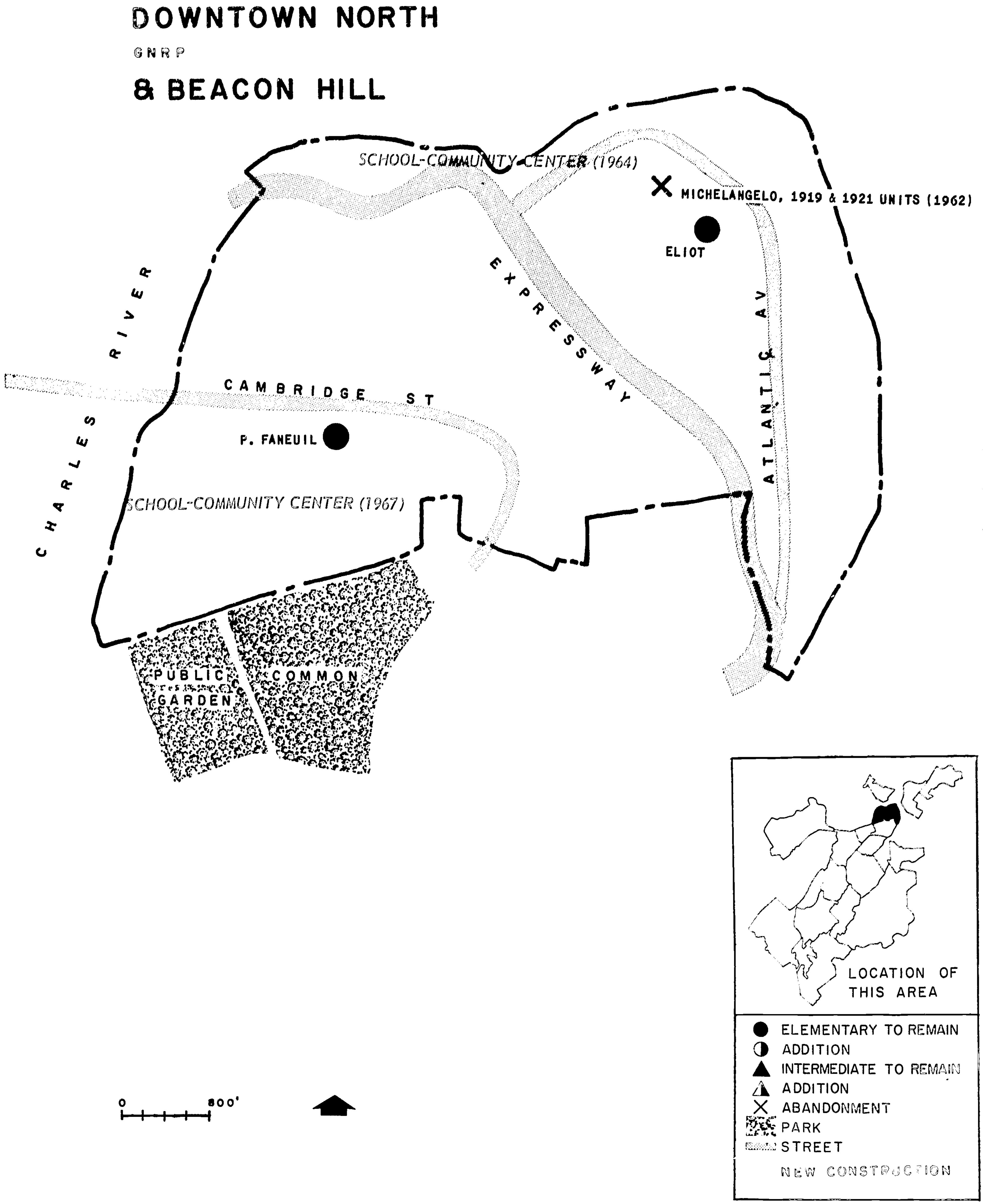
After years of deferred maintenance, this school would require major and extensive renovation to return it to a reasonable standard. Neither the roof nor the cracked and crumbling walls are watertight, and much of the plaster is also in poor condition. Doors, window frames and sash badly need attention.

Although the lighting system in the generally small classrooms has been updated recently, neither heating nor ventilation systems are in good condition. Basement toilet rooms and their furnishings were long ago outmoded and exhibit cracked asphalt composition floors and varnished wood partitions. Wooden construction of stairwells, wooden smoke doors on landings, and the only recently discarded practice of oiling the wooden floors in classrooms, corridors - all these fall below modern fire control standards. These factors in combination suggest that the Sheridan should be abandoned soon.

TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	K.G.	Other	Recommendations
					EAST BOSTON				
S. Adams	K-6	425	1910 1913	IV	3½	17	1	4	Retain as K-5
D. Alighieri	K-3	250	1924	I	2½	7	1	0	Retain as K-3
Chapman	K-6	490	1901	IV	3½	16	1	3	Abandon 1965
P.J. Kennedy	K-6	380	1933	I	2½	11	1	3	Retain as K-5
T. Lyman	K,4-6	350	1870	IV	3½	10	1	3	Abandon 1967
H.R. O'Donnell	K-4	350	1932	I	2½	12	1	1	Retain as K-5
J. Otis	K-6	440	1905 1917	I	3½	14	1	3	Retain as K-5
P.H. Sheridan	K-5	315	1914	IV	2½	11	1	1	Abandon 1968
D. McKay	K-8	990	1926	I	2½	28	2	9	Retain as K-5,6-8
J.H. Barnes	7-9	1,000	1901 1935	I	3½	30	0	13	Abandon 1970
					ORIENT HEIGHTS				
M. Bradley	K-6	370	1958	I	3	11	1	0	Retain as K-5
J. Cheverus	K-8	350	1909	I	2½	13	1	4	Abandon 1965
C. Guild	K-6	400	1921 1956	I	2½	12	1	2	Retain as K-5


DOWNTOWN NORTH
GNRP
& BEACON HILL
SCHOOL-COMMUNITY CENTER (1964)
MICHELANGELO, 1919 & 1921 UNITS (1962)
ELIOT
CHARLES RIVER
EXPRESSWAY
ATLANTIC AV
CAMBRIDGE ST
P. FANEUIL
SCHOOL-COMMUNITY CENTER (1967)
PUBLIC GARDEN
COMMON
0 800'
LOCATION OF THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION

DOWNTOWN NORTH, WEST END, AND BEACON HILL

This area which contains the sites of the earliest settlements of Boston and most of its historic buildings, stretches from the Public Garden, Boston Common, School Street, and State Street north to the junction of the Charles River and Boston Harbor. It is bordered on three sides by water; its southern boundary merges into the financial and retail centers to the east and only abuts other residential areas at the busy, congested intersection of Beacon Street, Arlington and Embankment Road, where traffic leaves Storrow Drive to enter the city. This complicates the movement of elementary and intermediate school children to other areas of the city.

The study area comprises not only the Downtown North GNRP, but also the earlier West End Project and the Historic District of Beacon Hill, neither of which is included within the GNRP boundaries, but which cannot be reasonably studied separately in terms of schools.

Within this section are two distinct concentrations of population, separated now and in the future even more so with the construction of the Government Center between them. These are the North End, beyond the Central Artery, and Beacon Hill, both "front" and "back" sides, together with the redeveloped West End. In both these districts there has been an extensive decline of population over the past years, not only as a result of extensive demolition, but due to decongestion of dwelling units, which has allowed the closing and consolidation of many schools.

Certain distinguishable characteristics of the population also lessen normal pressure on the public school system. In the North End there are three parochial schools and a population heavily-weighted towards older age groups. The back side of Beacon Hill has a large proportion of young married couples and students, a highly transient group. As a result, while there are numerous young children of pre-school and nursery school age, there are far fewer at higher grade levels. And of those actually at school age, over one-third attend private and parochial schools.

Population projections made by the study staff indicate a continuing decrease in the number of residents in this area over the next ten years; only two areas promise increased habitation. These are Charles River Park (West End) and the proposed Waterfront Redevelopment Project of the Chamber of Commerce. Analyses of these projects by housing experts on the basis of types of dwelling units and rents, histories of similar construction, and the pattern of rental of the first unit already completed in the Charles River Park have indicated a minimal contribution to public school enrollment from the new West End, while substantial numbers of pupils from the Waterfront Project can be expected to attend North End schools.

TABLE IA: BEACON HILL AND WEST END

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	200	115	120
6-8**	80	30	35

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

TABLE IB: NORTH END AND WATERFRONT

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	330	260	450
6-8**	220	65	130

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

The buildings presently in operation in this area are among the better ones in the city. All are of fire-proof construction, all were built in the twentieth century and have received better-than-average maintenance. However, the sites and outdoor recreation facilities are severely restricted by their congested environment. Of the three schools, Michelangelo, the North End Junior High, must receive the lowest valuation. Eliot Elementary, built in 1932 and a youngster as Boston schools go, is measurably the best. Peter Faneuil, a K-8 school on Beacon Hill is a sound structure in good condition, but it does not lend itself to the provision of a modern education program, especially in the upper grades, because of its lack of necessary special facilities.

In the North End the recommendation of the study staff is for the immediate abandonment of the classrooms in Michelangelo and the consolidation of grades 5, 7, and 8 now enrolled there with those in Eliot. Grade 9 should no longer be accommodated in the area, but should be sent to the city high schools to further the recommended 9-12 organization. The minute numbers of ninth grade pupils involved may be readily absorbed.

Eliot, like Faneuil, is unadapted to modern intermediate programs. It is recommended that a new school-community center be constructed on the Michelangelo site, utilizing the present fine auditorium and solid shop structure as nucleus. In this new structure should be provided a modern gymnasium and locker room for school and community use, classrooms for instruction in homemaking and music, improved shop areas, a kitchen for use by community groups meeting here, and a modern kindergarten. The close proximity of these facilities will allow Eliot to adapt for a good K-5, 6-8 program. This new center should be open before 1964 when the Waterfront project is expected to begin contributing its pupils.

One further school facility should be provided to take care of those pupils who do not attend the parochial schools until the first grade. To balance the kindergarten in the community center and that which does exist in the parochial system, space should be provided within the Waterfront Project for a kindergarten class to be staffed and managed by the Boston public school system.

On Beacon Hill it is obvious that Faneuil will be more than adequate to house all pupils below high school level who have been anticipated. Indeed, room will exist to accommodate increased enrollment from Charles River Park above that estimated and to house pupils who <u>may</u> switch from private and parochial schools. Advantage should be taken of these decreased enrollments as rooms are free to create within the building those special facilities which can be adapted to standard classroom space: library, advanced work programs, music, art, and science instruction, etc. The area is too isolated from other concentrations of population for any consolidation without transportation.

When the Government Center opens and the School Administration can vacate its old Bowdoin School annex on Myrtle Street between Russell and Irving Streets, advantage should be taken of this site to construct a school-community center similar to that for the North End. It should include an adequate gymnasium with locker rooms for school and community, a multi-purpose assembly hall and meeting room with adjacent kitchen, shop spaces, and homemaking facilities - all those adjuncts to an up-to-date intermediate program which cannot be provided within Faneuil. The slope of this site, combined with the proper design, will afford an opportunity to utilize the roof space as well. With such an annex available, the Faneuil will be in a position to offer an excellent K-5, 6-8 program for its small enrollment. It should be possible to have completed this conversion and construction by 1967.

TABLE II

Year	Number of Schools	Grades Housed	Capacity	Description
1964	1	K-8	--	school-community center
1967	1	K-8	--	school-community center

SUMMARIES OF SCHOOLS TO BE ABANDONED

Michelangelo: 5, 7-9

Built in 1919; 3 1/2 stories; 1921 gymnasium addition; 1930 auditorium addition; Type I; red brick exterior
22 classrooms @ less than 500 sq. ft. to 750 sq. ft.; 2 general science rooms @ 770 sq. ft.; 1 cooking room @ 770 sq. ft.; 2 sewing rooms @ 470 and 500 sq. ft.; 4 shops (2 in use); 1 gymnasium; 1 auditorium with stage and service rooms

Capacity: 550

The Michelangelo is a large, somewhat rambling structure immediately adjacent to the only open land in its part of the North End, the Copp's Hill Burying Ground. It has had a history of decreasing enrollment and is presently less than half full. The school's site is a small, paved yard used primarily for parking. The auditorium addition is entered from this yard or from the next street. The outwardly attractive main building rises directly from the sidewalk.

Within the building there is much unused space. The shops on the lower floors of the second addition need remodeling for more effective utilization. Generally, lighting, plumbing, and heating systems are unsatisfactory throughout. The 43-year old hand-fired coal heating system is obsolete. Water seeps through window frames, and some rooms are reportedly impossible to heat for use in winter. Classroom windows swing out from the bottom and thereby present safety hazards.

Ceilings of the upper stories of the classroom wing have been damaged by water seepage and the roof needs repairs. Many of the classrooms are too small or ill-proportioned by modern standards for either intermediate or elementary use. The gymnasium is likewise too small and is poorly equipped to serve either the school or community well. The layout of this wing incorporates dead-end corridors and an enclosed turret fire escape.

The exterior needs painting, windows and doors need repair, and general painting and modernization of furnishings throughout the interior are needed to bring this structure up to standard. Although the residents of this area use the building for community meetings, athletics and adult education programs, renovating and maintaining such a large structure for the diminishing public school enrollment of the North End is expensive and inefficient.

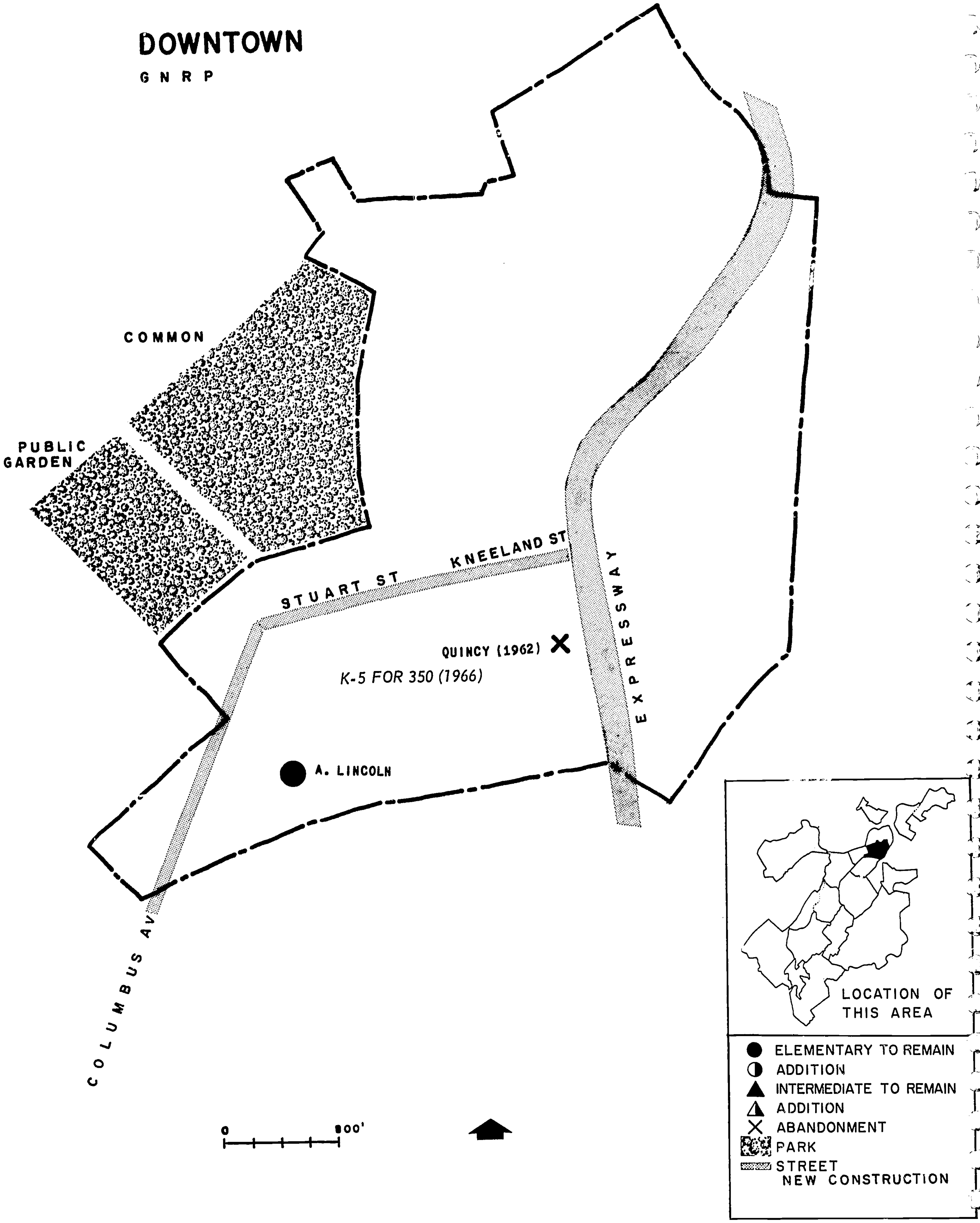
TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
Eliot	K-6	550	1932	I	$3\frac{1}{2}$	17	1	2	Retain as 1-5,6-8
P. Faneuil	K-8	430	1910	I	$3\frac{1}{2}$	13	1	2	Retain as K-5,6-8
Michelangelo	5,7-9	550	1919 1921 1930	I	$3\frac{1}{2}$	20	0	11	Raze 1919 and 1921 portions in 1962; Retain 1930 portion

DOWNTOWN

GNRP



DOWNTOWN

Curving around the Boston Common and Public Garden to the south, this section of Boston sweeps from State Street and the Central Artery down through the financial district and the retail core, past South Station and Fort Point Channel to the railroad cut-Turnpike Alignment and the new insurance district where it borders the Back Bay at Arlington, Stuart and Clarendon Streets. It includes the entertainment districts, Chinatown, and the small residential section of Bay Village (Kerry Village).

Other than a small block adjacent to the State House, all residential areas are concentrated in the portion known as the South Cove, between Stuart-Kneeland Streets and the railroad. (The Bellevue Hotel block is included in planning for Beacon Hill.) This heterogeneous area contains not only Chinatown and Bay Village, but a polyglot population of many diverse ethnic groups. Many of the residential structures date from quite early in the city's history. Some have been privately rehabilitated and are among the finest intown dwellings available; some, many originally speculative structures, are in a state of deterioration.

The population of this area has been declining, and vast expanses of parking lots are replacing former structures. Land-taking for the Turnpike, its access and service roads will remove more housing stock. Consequently, population is expected to decline still further for a short while. However, indications are that a solid core of residents who wish to remain has been reached and that the convenience of this neighborhood near business establishments, employment opportunities and entertainment will ensure its continued existence. Plans for expansion of the Tufts-New England Medical Center and simultaneous rehabilitation and replacement of housing can be expected to attract even more professional residents as well as to reinforce the decisions of the present inhabitants to remain. Actual increases in the 15-19 age group recently and projected increases would appear to indicate an influx of students.

Enrollment predictions for this area reflect this imminent halt in population decline. After 1965 primary grades are expected to be stabilized and may show a slight increase, which would be furthered by any success in attracting young married couples connected with the New England Medical Center. Intermediate grades in public schools are not so affected and are not predicted to achieve stabilization as soon.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	475	365	350
6-8**	260	240	185

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

The two buildings now serving this population and the neighboring northern edge of the South End GNRP are Lincoln, a K-8, and for Chinatown, the historic Quincy School, a K-6. Since the recent replacement of Alcott School in the South End, the Quincy is the oldest building in service in the Boston school system, and the heavily traveled streets in its neighborhood present a safety problem for young children.

The study staff recommends the abandonment of Quincy for school purposes by the autumn of this year (1962) and temporary consolidation of its pupils in the Lincoln. This action will in all probability be simultaneous with extensive land-takings in this Chinese community by the Turnpike Authority and consequent relocation of many of the families now serviced by Quincy.

As far as Lincoln is concerned, it is a sound, well-maintained, and sizeable structure, although unfortunately out-of-scale with its setting. It has long played an important part in the life of this community. Presently, it houses several programs of specialized nature, office space, and a dental clinic, in addition to its traditional K-8 program. Its four and one-half story height is not an asset in its role of primary education, and the extreme limitation of the site and lack of special facilities for physical education, as well as other facets of a modern education program, limit its usefulness further. Moreover, its location will shortly become even more of a distinct educational liability than it now is, insofar as elementary pupils are concerned. With the construction and completion of the Turnpike, the Lincoln will be perched on a corner overhanging this road, its access ramp from Arlington Street and parallel service roads, collectors of traffic from the business and retail centers. While this may be rationalized for pupils of high school age and above, it is an unacceptable situation for an elementary school.

Therefore, in 1966, it is recommended that the regular school programs be removed from Lincoln and be replaced by further expansion of that school's specialized functions. In particular, it could be used to house the pupils of Godvin Special School now housed in a converted mansion in Roxbury.

The small numbers of intermediate pupils may now continue school in the South End where new construction recommended to be completed by this year will have created room in the C. E. Mackey for them. The greater concentration of numbers and modern facilities will enable them to take advantage of more up-to-date programs than would be possible in Lincoln.

For elementary pupils a new K-5 school for 350 pupils and one special class should be opened in 1966. The precise location of this school and the possibility of its combination with new construction in the South End into one larger unit is dependent on the fate of the Castle Square Redevelopment Project, in which early clearance is planned by the Boston Redevelopment Authority. It would be undesirable to have primary pupils forced not only to cross the Turnpike but also to pass through a belt of commercial and industrial activity in order to attend a school over one-half mile away. Preferably, it should be situated centrally to the residential distribution of South Cove. Any considerable changes in the present population composition of Castle Square would also affect the necessary size of this new school. Therefore, the precise details of this part of the study staff's recommendation must be adapted to new information about the area as it is available.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity
1966	1	K-5	350

SUMMARIES OF SCHOOLS TO BE ABANDONED

Quincy: K-6

Built in 1847; office and shop addition, 1910; 3 1/2 stories; Type IV; red brick exterior
12 classrooms @ 780-870 sq. ft.; 1 shop @ 990 sq. ft.

Capacity: 370

One of the oldest public schoolhouses in America, and the oldest in Boston still in use, the Quincy School was a pioneer. It was the first American public school in which children were arranged by grades. It still serves its neighborhood after more than a century of use, but its facilities, compared with the facilities of the pioneer schools of today, are minimal.

In an area of the city in which children have few play areas except the streets, the Quincy School can offer little more. It is closed in by tall buildings, and its extremely small yard is paved and fenced. Access roads to the Turnpike Extension will soon be constructed immediately adjacent.

The building itself evinces its age. Floors are sagging, split, and worn; window sashes are loose and rotten; interior walls and ceilings are cracked and show evidence of leakage. The lighting is poor even on sunny days. Substandard toilets are located in the basement and their porous floors retain dirt and odors. The boiler is hand-fired with coal. Except for a shop, there are none of the special educational facilities available to many other children through the United States and elsewhere in Boston.

Such deficiencies as the open stairwells, wood stairways, wood frame interior, and the height of the building (shrunk from its original four and one-half stories to three and one-half in the wake of the 1938 hurricane) suggest that the Quincy should be abandoned for school use as soon as possible. Considerations for retention of this structure because of its historical associations must depend on another economical use for it; it cannot justifiably remain as a burden on the School Department.

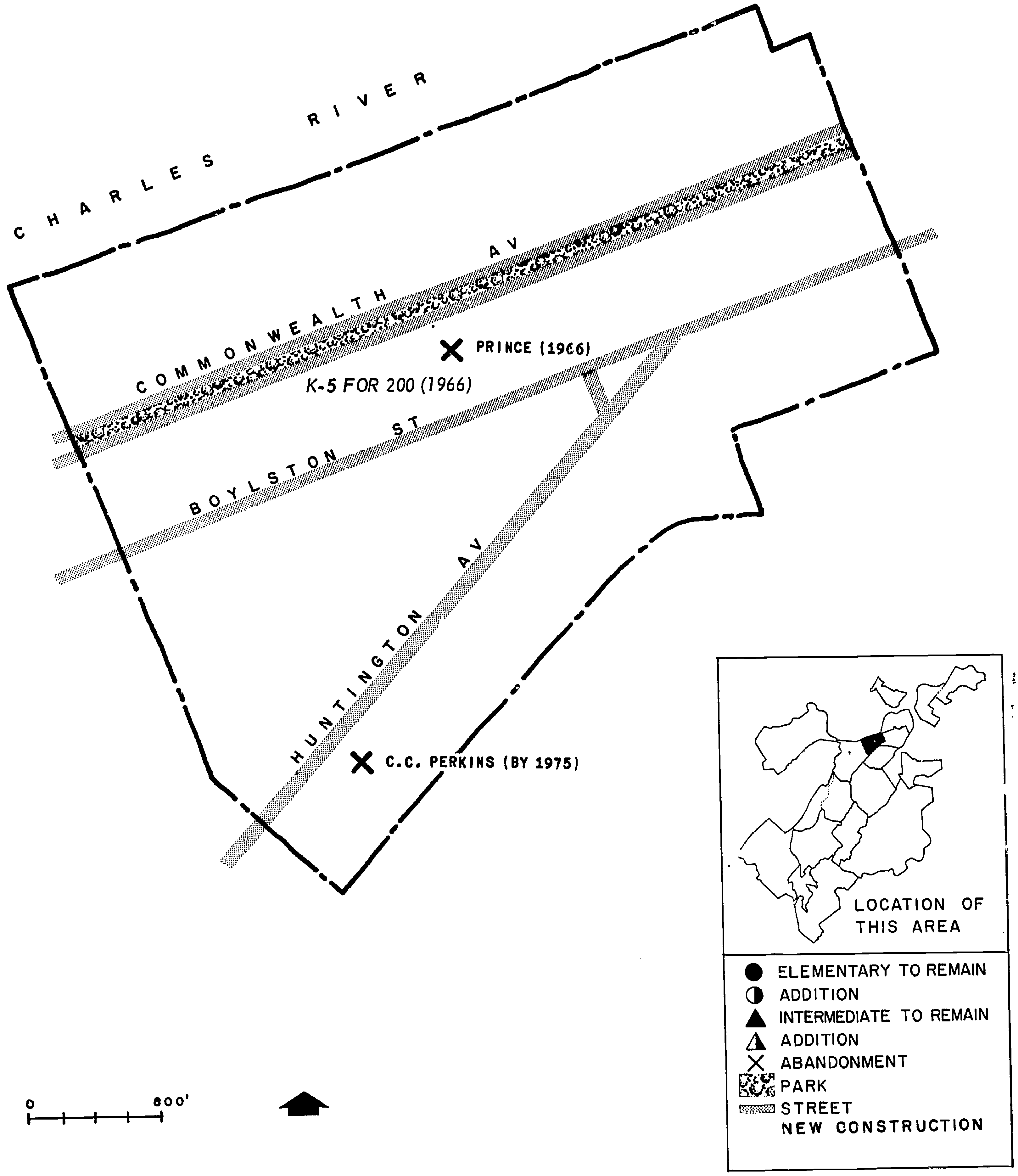
TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
A. Lincoln	K-8	890	1911	I	4½	32	1	6	Retain as K-8 until 1966, then as Spec.
Quincy	K-6	370	1847 1907	IV	3½	11	1	1	Abandon 1962

BACK BAY

GNRP



BACK BAY

For purposes of study, the well-known Back Bay region has been strictly confined to the limits of Back Street, Massachusetts Avenue, the New Haven Railroad cut and an irregular line enclosing the new insurance district along Clarendon, Stuart, and Arlington Streets along the western edge of the Public Garden to Embankment Road at Beacon Street. Thus, it includes such diverse sections as Copley Square-Newbury-Boylston Streets, Huntington Avenue and St. Botolph Street, the environs of the Christian Science Mother Church, and Back Bay proper, which is centered on Commonwealth Avenue. Set into this area is the Prudential Center.

In common with its neighboring areas in the central core of Boston, this region has experienced dramatic declines in population in recent years. With its many institutions, particularly small educational ones, this area has a great proportion of residential facilities devoted to student use. The 15-19 age group in 1960 was over six times as large as the next younger age group. It can be expected that this situation will continue or even intensify as pressures for higher education lead to expansion of those institutions here and nearby to which these students are related.

Therefore, this region is not expected to produce very large numbers of public school pupils. Of the small number of families with school-age children who do live in the area, many do not send their children to public schools. At present, however, a large number of children who live elsewhere are attending schools in this region.

Not only do some pupils come from Beacon Hill to the Prince School, but the greater proportion of pupils attending C. C. Perkins reside across the railroad line in the South End. The elementary enrollment estimates in Table I include these.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	440	420	380
6-8**	140	70	70

* figures rounded off to nearest ten

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

The two schools serving the area, the C. C. Perkins and the Prince, are described below. The Prince now is a K-8 school, drawing from a district stretching west to the Brookline border and Cottage Farm Bridge. In 1966 when a new intermediate school is recommended to be opened in the South End, pupils in grades 6-8 now in Prince and Perkins should begin attending intermediate schools in that area, either C. E. Mackey or the new school, where they can benefit from programs possible with larger numbers of students and modern facilities. With such facilities accessible, the present and estimated enrollments of this grade level do not justify maintaining an intermediate program in the Back Bay.

In 1966 then, the Prince School, in addition to other liabilities, will become much too large for the number of pupils residing in the area. It is recommended that it then be replaced by a 200 pupil K-5 school to be constructed across the street on the present site of the offices of the State Department of Education that are soon to be vacated. The current building should be razed to provide additional recreational area. This location would appear to serve the scattered population well. An alternative to building this small neighborhood school might be consolidation elsewhere, most practically in the South End. But this cannot be recommended, for it would result in small children walking distances of nearly a mile or more in some cases along some of Boston's most heavily traveled streets. This size school will, however, easily handle the elementary enrollment of Back Bay and could be added to, if necessary, to house pupils from the Prudential Center apartments when they are built.

The C. C. Perkins should remain operating temporarily (as a K-5 in 1966), but an immediate relocation of the special class now in its basement is urged; if necessary, this relocation could be in another school. By 1975 or earlier, it is expected that the new schools in the South End and the new Prince will have drawn off most, if not all, of the enrollment of the Perkins, and by this date Perkins should be abandoned.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity
1966	1	K-5	200

SUMMARIES OF SCHOOLS TO BE ABANDONED

Charles Callahan Perkins: K-6

Built in 1891; 2 1/2 stories; Type IV; yellow brick exterior
7 classrooms and 1 kindergarten @ 780 sq. ft.; 1 classroom @ 700 sq. ft.; 1 classroom @ 880 sq. ft.; 1 special instruction classroom in basement @ 840 sq. ft.

Capacity: 310

Although 70 years old, this building has been well-kept and has had recent major improvements and repairs. The hemmed-in condition of the site among solid-looking apartment blocks has been only slightly opened up by construction of the low Midtown Motor Inn across the alley to the rear; this allows light and breezes, but also noise, to sweep across to one room on the second floor of the school. There is no artificial ventilation and the necessary improvement to artificial lighting would require complete rewiring. Unfortunately, the new boilers are still coal burners fired by hand. Large open hallways and a sweeping open staircase are prominent features which detract from the fire resistance of the building and add to the difficulties of heating. Despite all improvements and good maintenance, this building's desirability for use as a school is limited because of its wood frame construction.

Because of its location and relative attractiveness compared to most schools of nearby areas, a major proportion of its pupils come from outside the district, across the railroad lines in the South End. This situation is not expected to continue as modern schools are developed in the South End. The Perkins may be useful for a few years, but it should have no place in long-range planning.

Prince: K-8

Built in 1875; addition in 1912; 3 1/2 stories; Type IV; brick exterior
6 classrooms @ 790 sq. ft.; 4 classrooms @ 680 sq. ft., 3 classrooms @ 620 sq. ft.; 1 kindergarten @ 820 sq. ft.; 2 shops; 1 cooking room; and 1 sewing room. Second floor auditorium

Capacity: 395

Originally constructed 87 years ago, this school is now an outdated and undistinguished structure with little to recommend it by modern standards. There is no usable site; exterior walls are in need of repointing; and the paint of the trim is in very poor condition. Sash are loose and rattle in the window frames, which in turn need caulking. Water seeps in everywhere from the roof to the foundation, with resultant cracks and stains of interior plaster. Some ceiling plaster has broken away from its lath.

Furnishings of classrooms are outmoded (except for lighting) and expanses of dark varnished woodwork, particularly between windows, do little to improve the rooms' attractiveness. Wooden flooring of rooms corridors and stairs is worn throughout. The cut-up layout of the upper floors, which are served by dual staircases, is confusing. Although the heating plant is oil-burning and fairly new, there is no artificial ventilation. Few specialized facilities for a modern educational program exist; this deficiency is especially noticeable in the upper grades. Equipment in the print shop is old-fashioned, and the woodwork shop is extremely small.

In view of its general deficiencies, age, construction and design, no more expenditure of funds is warranted on this structure. The Prince should be abandoned as soon as feasible.

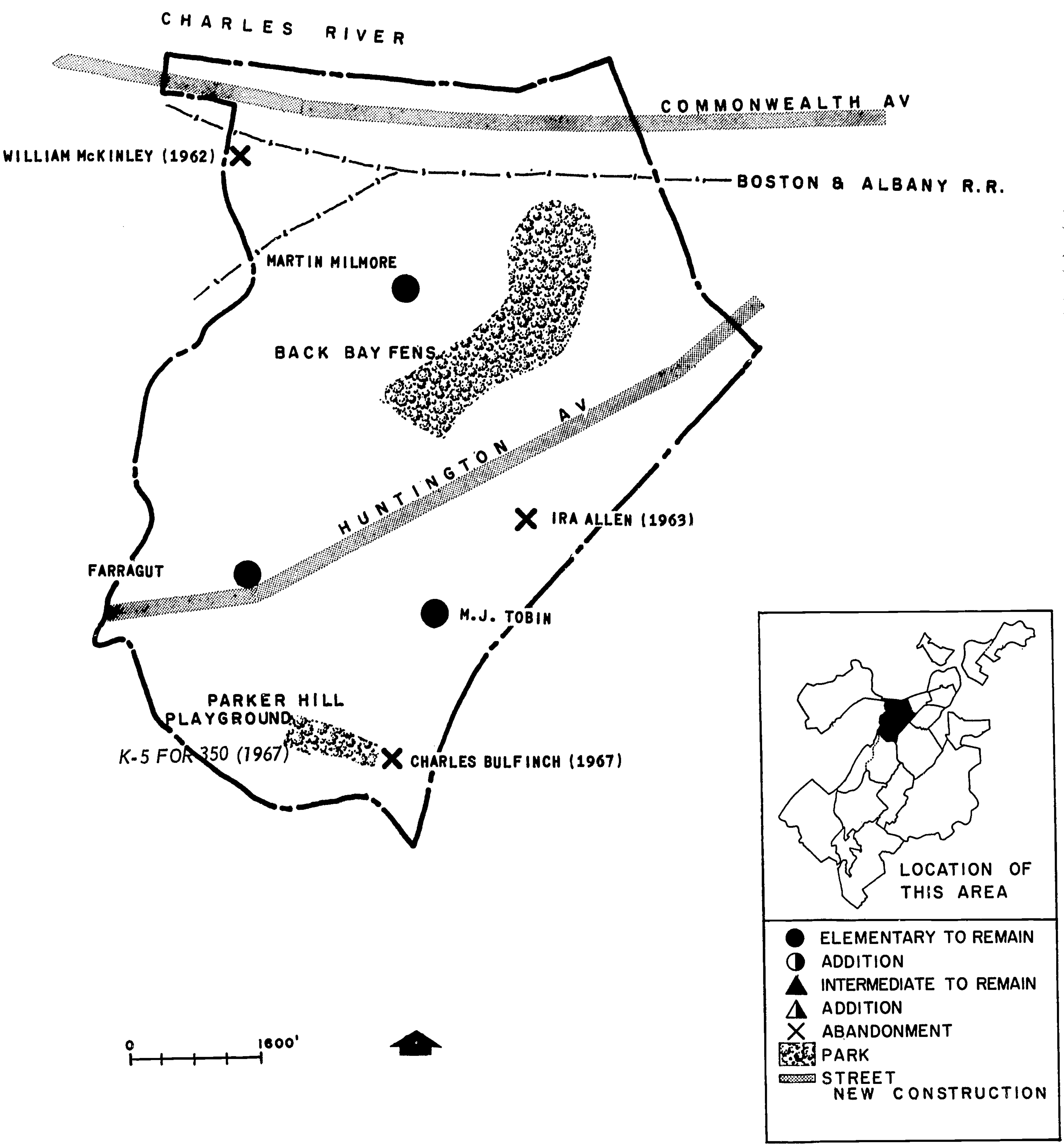
TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
C.C. Perkins	K-6	310	1891	IV	$2\frac{1}{2}$	9	1	0	Abandon by 1975
Prince	K-8	395	1875 1912	IV	$3\frac{1}{2}$	13	1	4	Abandon 1966

PARKER HILL-FENWAY

GNRP



PARKER HILL AND THE FENWAY

In area stretching from the Charles River to Heath Street and from Massachusetts Avenue and the New Haven Railroad (Providence branch) to Brookline and meeting Brighton at the Boston University (Cottage Farm) Bridge, this pleasant region of Boston contains some of her greatest institutions: the Museum of Fine Arts, Symphony Hall, Northeastern University, Boston University, Simmons College, Harvard Medical School and the Children's Medical Center, the Mission Church, Boston Latin School, and Fenway Park, among others. As might be expected, a great proportion of the residents here are connected with these institutions and the basic stability of the population is affected by their actions and growth. In 1960 the census showed well-over three times as many inhabitants in the 15-19 age group as in the younger groups, indicating the numbers of students, nurses, and so forth that are found here.

It is convenient to divide such an area into its natural parts: the Fenway running north from the line of Ruggles and Louis Prang streets along the southern edge of the Fens, and "Parker Hill" south of this. This division would be reinforced by construction of the Inner Belt along this alignment as has been proposed. Population projections show a continued slight decline in the elementary age groups in the Fenway section, but the bulk of the population, which is concentrated on Parker Hill and in the housing projects at its base, is expected to remain stable. Thus, while enrollment predictions derived from these projections show slight declines, the greatest decline is concentrated in the Fenway region.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	1,475	1,455	1,400
6-8**	475	335	405

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

Of the schools in this area, excluding the city-wide high schools (Boston Latin, English, Trade, and Girls' Trade), four are K-6 elementaries, Ira Allen is a K-2, and Maurice J. Tobin, newly constructed on the Mission Hill Playground, is now serving as a K-8. The large (1,300-pupil) parochial school of Our Lady of Perpetual Help also serves grades 1-8, and the parish high school serves the older pupils. The demand upon the public school system to provide kindergartens can be seen to be correspondingly higher than for upper grades.

Just across Heath Street in the Jamaica Plain GNRP is Jefferson School now enrolling many pupils from the south slopes of Parker Hill; similarly, Charles Bulfinch on the eastern slopes enrolls pupils from the Bromley Park and Heath Street housing projects.

In 1966 it is recommended that the few intermediate (6-8) pupils who live in the Fenway and who now attend Prince School in the Back Bay enroll in the new South End Intermediate School, along with pupils from Back Bay (see above).

In the north there are two elementary schools, the William McKinley on the Brookline border and the Martin Milmore. Currently as

K-6 schools, these two are each operating well-below half their capacity and no increase of enrollments from this area can be predicted to alleviate this situation. On the contrary, estimates are that enrollments will drop another 50 per cent by 1970. Therefore, it is recommended that these two schools be consolidated in Milmore, the better-located and newer structure. At one section per grade, there will still be two rooms available for specialized functions or special classes. One strong objection to this arrangement is the fact that the isolated pocket served now by McKinley and centering on Audubon Circle has no access to Milmore except along Park Drive or through Kenmore Square. The extremely heavy traffic along this numbered route is a great hazard. The intersection at Sears Roebuck (Brookline Avenue) is especially bad, and so is that at Beacon Street, which must even now be crossed by some pupils. However, as the continual expansion of Boston University, Turnpike land-takings along Mountfort Street, and other factors cause enrollments to decrease in this pocket, it will become increasingly impossible to justify maintenance of McKinley as a separate unit.

As for the Parker Hill area, the conditions in the Ira Allen and Charles Bulfinch Schools are described below. The stable enrollment pattern here means that they must be replaced before they can be abandoned. It is the recommendation of the study staff that by 1963 grades 6-8 and the intermediate special class be removed from M. J. Tobin. This school is neither well-designed to provide for, nor does the number of students warrant, its adaptation to a modern intermediate program. It is noted that the use by the school of the adjacent Municipal Gymnasium is not permitted. The intermediate pupils from Parker Hill should be accommodated in the M. E. Curley in Jamaica Plain which many now attend and in the J. P. Timilty nearby in Roxbury.

The Ira Allen should then be abandoned and its pupils enrolled in Tobin. A single patrolled crossing of Parker Street between the housing projects will be necessary. Spaces for kindergartens should be provided in the two housing projects to be staffed and administered by the Boston school system. This will relieve the pressure for kindergarten spaces noted above.

In 1967 Bulfinch should be replaced by a K-5 school for 350 pupils on a site higher up on the little-used Parker Hill playground. The long-proposed improvement of Heath Street as part of a major cross-town artery will make it undesirable for the above-mentioned exchange of elementary pupils between Jamaica Plain and Parker Hill to continue. This new location for Bulfinch will be more accessible to pupils now attending Jefferson from the south slopes of Parker Hill.

Farragut should continue to serve the population to the west of Huntington Avenue and on the western slopes of Parker Hill, despite the unfortunate necessity for some pupils to cross Huntington Avenue. In the future, if continued displacement of residential uses west of Huntington continues as in the past so that the present enrollments from here decrease significantly, it would be desirable to replace Farragut by an addition to the new Bulfinch and to eliminate as much of this crossing as possible.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity
1967	1	K-5	350

SUMMARIES OF SCHOOLS TO BE ABANDONED

Ira Allen: K-2

Built in 1901; 2 1/2 stories; Type IV
4 classrooms @ 730 sq. ft.; 2 kindergartens @ 730 sq. ft.

Capacity: 200

The Allen School would require a sizeable expenditure to correct its deficiencies. Walls and ceilings show evidence of major leakage. A water problem in the basement indicates foundation problems. Toilet and lavatory facilities demand renovation. Rooms need painting, walls require replastering. Exterior masonry needs repointing, some sash should be replaced, and all should be painted.

This work cannot be justified to restore a non-fire-resistive structure which has only six classrooms and no special facilities. Although steel stairways and well-placed fire doors make the abandonment of the building less than imperative, its use should be discontinued as soon as other facilities and planning conditions will allow.

Charles Bulfinch: K-6

Built in 1911; 2 1/2 stories; Type IV; red brick exterior
4 classrooms @ 670 sq. ft.; 4 classrooms @ 640 sq. ft.; 2 classrooms and 2 kindergartens @ 740 sq. ft.

Capacity: 340

A W-shaped structure perched on the side of Parker Hill under the eastern edge of the playground, Bulfinch has just been repainted inside. Unfortunately, the building otherwise is in a deteriorating condition and has few modern facilities to recommend it. The foundation, as well as the exterior walls, are chipping and cracked. Parts of the latter were waterproofed not many years ago, but extensive repointing is necessary. Interior walls and ceilings evinced past water damage before paint was applied.

Artificial lighting is substandard, and the high hill behind the school cuts off natural light from the west. The hand-fired coal heating system is difficult to control, especially since many radiators reportedly do not work well. In addition, the building suffers from badly worn wooden flooring in classrooms, corridors, and on the open wooden frame staircase.

Antiquated plumbing facilities are decidedly deficient, with overhead water tanks, slate trough urinals, varnished wooden stall partitions, and cracked composition floors which retain dirt and odors. Dim lighting and damp basement atmosphere contribute to the substandard nature.

This building should be abandoned. Lack of any specialized facilities for a modern educational program, non-fire-resistive construction and its generally deteriorated condition are sufficient justification for this decision, and its poor and hazardous site which lies in the path of a proposed improvement to Parker Street reinforces the recommendation for its abandonment.

<u>William McKinley</u>: <u>K-6</u>

Built in 1923; 2 1/2 stories; Type I; red brick exterior
7 classrooms and 1 kindergarten @ 710 sq. ft.; health room; principal's office

Capacity: 220

The McKinley School is a small building located directly on the Brookline boundary. It is reasonably attractive for an older building, however, the site is small and the lack of special facilities within the building restricts program possibilities.

The classrooms evidence need for maintenance. There are cracks in the ceilings and walls and both need repainting. The mechanical ventilation system is inoperative, and the plumbing facilities are obsolete. Heating is provided by a hand-fired coal boiler.

In 1961 approximately 100 pupils attended the school, thus utilizing the building at less than half its capacity. Population projections indicate a further decrease in enrollment. This reduction in enrollment would make its continued operation uneconomical.

In view of its small size, poor location, and declining enrollment, the McKinley should be abandoned as soon as other accommodations for its limited enrollment can be provided.

TABLE III

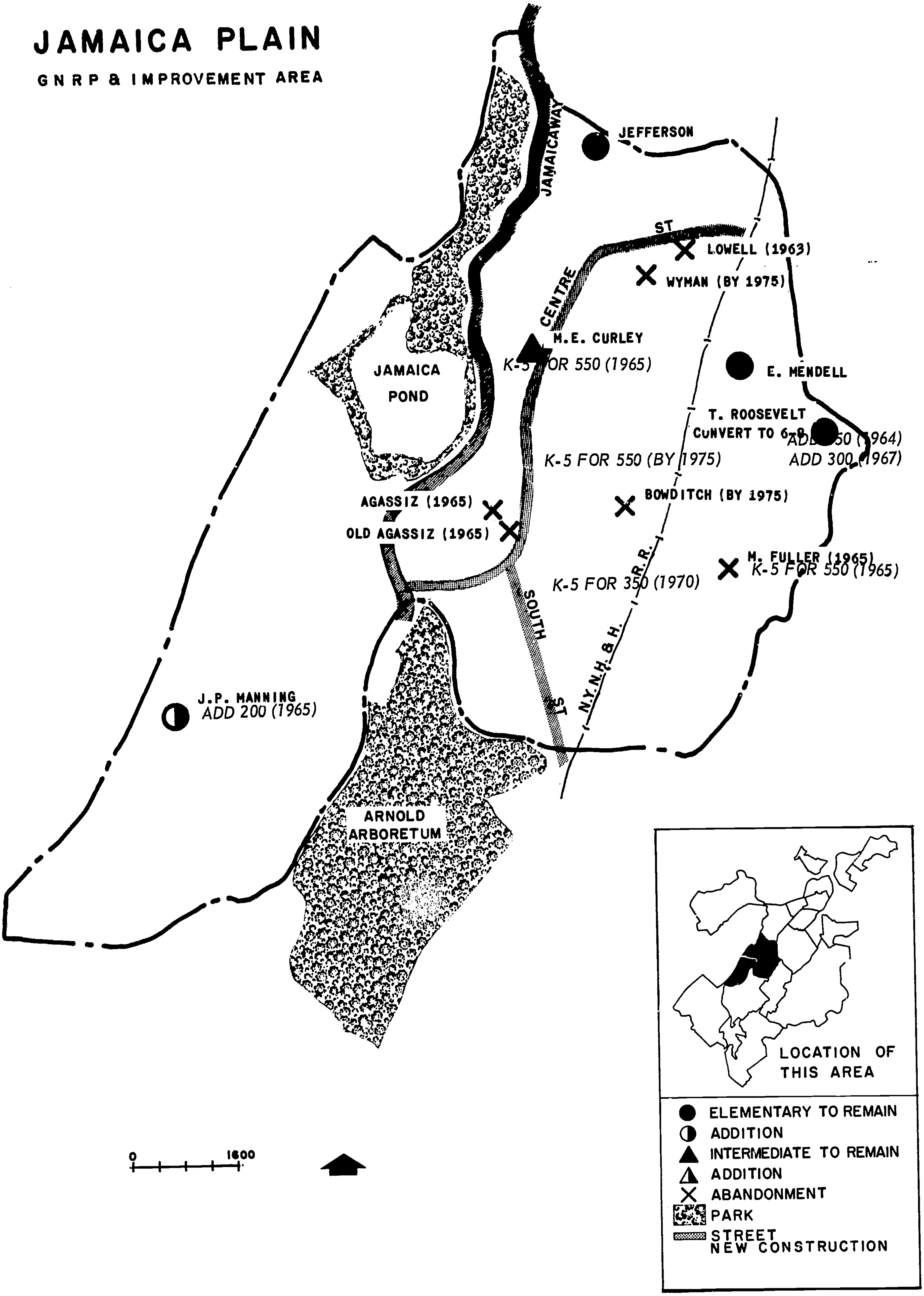
RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	K.G.	Other	Recommendations
I. Allen	K-2	200	1901	IV	2½	4	2	0	Abandon 1963
C. Bulfinch	K-6	340	1911	IV	2½	10	2	0	Abandon 1967
Farragut	K-6	340	1904	I*	2½	10	1	2	Retain as K-5
W. McKinley	K-6	220	1923	I	2½	6	1	1	Abandon and sell
M. Milmore	K-6	260	1929	I	2½	7	1	1	Retain as K-5
M.J. Tobin	K-8	760	1959	I	3	22	2	4	Retain as K-5

*wood roof

JAMAICA PLAIN

GNRP & IMPROVEMENT AREA



JAMAICA PLAIN AND MOSS HILL

The Jamaica Plain GNRP is strongly defined by the arc of Olmsted Park and Jamaica Pond, the Arborway and Monsignor Casey Highway (Forest Hills overpass) and Franklin Park. To the north and northeast Heath Street, Columbus Avenue and Seaver Street are less definitive boundaries. Neighboring Jamaica Plain to the southwest, the Moss Hill Improvement Area extends from south of Jamaica Pond to the VFW Parkway and from Centre Street along the edge of the Arboretum to the Brookline Town line; because of the hazards of the Arborway, it must be treated as a distinct elementary school region.

Further sub-division within the GNRP is created by the north-south railroad embankment which would be decisively reinforced by the proposed alignment of the Southwest Expressway adjacent. All of these regions are predicted to produce significantly increased public school enrollments through 1970.

The only public school serving the growing area of Moss Hill at the present time is the small J. P. Manning, with two temporary classrooms in the ground-floor playroom. In 1965 it should have a 200-pupil addition which will enable it to continue as a K-6 school until 1970 when it should reorganize on a K-5 basis.

The Jamaica Plain GNRP is served by several schools. Located in Jamaica Plain with its district covering most of the study area as well as the south slopes of Parker Hill, Mary Curley now houses grades 7-9 and an elementary colony. In 1965 pupils living east of the railroad tracks should enroll in T. Roosevelt for grades 7-9. (See Roxbury -

North Dorchester). With the elementary grades also re-housed, in 1965 Curley should enroll all sixth grade children in the GNRP west of the tracks and from the south slope of Parker Hill. With the replacement for Lowell now under construction and its opening set for 1963, this reorganization should relieve the current and increasing overcrowding.

To facilitate this reorganization and to allow early abandonment of Fuller, Agassiz, and Old Agassiz, two new 550-pupil schools should be opened in 1965, one west of Centre Street and one near Glen Road.

Curley will then operate efficiently near capacity as a 6-9 school. By 1968 and 1969, the ninth grade can be phased out as new central high school facilities are available, thus completing its conversion to a 6-8 school. It should be able to continue to accommodate the growth in enrollments at this level. As Moss Hill and the region east of the tracks change to a K-5 elementary system and as Roosevelt becomes a 6-8 in 1969 and 1970, the entire reorganization for this area will be complete.

Further growth will require a new 350-pupil school in the general vicinity of the Murphy Playground by 1970. Bowditch and Wyman should be replaced before 1975 by another new school for 550 pupils.

TABLE I

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Comments
1965	1	K-6	200	addition, Moss Hill
	1	K-6	550	Jamaica Plain
	1	K-5	550	Jamaica Plain
1970	1	K-5	350	Jamaica Plain
(by) 1975	1	K-5	550	Jamaica Plain

SUMMARIES OF SCHOOLS TO BE ABANDONED

Agassiz: K-6

Built in 1893; 3 1/2 stories; Type IV; brick exterior
8 classrooms above 800 sq. ft.; 1 kindergarten @ over 1,300 sq. ft.; 1 woodworking shop; 1 music room; 1 sewing room; 1 remedial reading room; 1 basement TV room; 1 auditorium located on third floor; 1 teachers' room

Capacity: 290

Sharing a limited site with Old Agassiz and adjacent to parking lots at the rear of the main shopping street of Jamaica Plain, and across the street from a garage and used car lot, this 70-year old school is approaching the point of no economic return for investment in it. Recently, the roof has been repaired, but the gutters need attention. The north wall has been repointed and caulking done around windows there, but the other three walls demand the same treatment. Bricks are cracked or crumbling, all window frames need paint, and several sills have rotted badly enough to demand metal capping.

The basement shows signs of water seepage and the outside steps continue to settle away from the building, despite attempts in 1960 and 1961 to repair them. While the classrooms are large, they have no artificial ventilation and have had no paint for years, despite widespread damage caused by the leaking roof and poor condition of the walls. The paint that remains is chipped and peeling. Services such as lighting and plumbing are far below standards of contemporary design,

At the time of inspection, one of the 1893 hand-fired coal boilers was out of commission pending repairs requested by the insurance inspector. This building falls short of modern standards of fire resistance, considering the large amounts of wood used in its construction and finishing, including wooden beam and plank ceilings in lower corridors.

Bowditch: K-6

Built in 1892; 3 1/2 stories; Type IV; yellow brick and granite block exterior
13 classrooms and 1 kindergarten @ approximately 700 sq. ft.; 1 sewing room; 1 auditorium located on third floor; 1 TV space in basement

Capacity: 365

Having received fairly good maintenance, this 70-year old school is in relatively good condition structurally. It has, however, several defects and is of an obsolete design. The slate roof has been repaired but not before the third floor suffered extensive water damage to the ceiling thus necessitating plastering and repainting which are yet to be done. Some repointing of exterior brick masonry must also be done.

The egress from the third floor auditorium is not satisfactory, and use of this and of the two classrooms flanking it should be very carefully controlled. Three flights below in the basement are located the health office and the dark, antiquated toilet rooms. Fixtures here are outmoded and the porous paving makes the rooms extremely difficult to keep sanitary and odor-free. The hand-fired, coal-burning boilers located here are handicapped in heating the building effectively by the deterioration of window sash throughout which admit drafts.

Although recently painted, classroom walls have cracked. The dark woodwork reinforces the deficiency in lighting standards. And while the staircases, covered by worn linoleum, are of steel, the building is basically of wood frame construction and has extensive wood finish material inside. For all these reasons, it is recommended that the building be abandoned before 1975.

M. Fuller: K-6

Built in 1892; 2 1/2 stories; Type IV; red brick exterior
8 classrooms and 2 kindergartens @ 660 sq. ft.; 1 sewing room @ 440 sq. ft. located in basement; 1 unused basement room @ 440 sq. ft.

Capacity: 280

Fuller perches against the side of a steep and rocky hill one-half block from Washington Street and the MTA. The exterior masonry of this building is crumbling and chipping. Water enters through cracks in the roof, walls, and the deteriorating brick foundation, while the long unpainted window frames require caulking.

Inside, the classrooms are drab, with old, dusty paint and substandard lighting arrangements. Cracks in plaster walls and ceilings have resulted from leakage and age.

Toilet rooms in the basement are equipped with old-fashioned fixtures, including a slate trough in the boys' room. In this latter room the ventilating system is inoperative. Porous paving in these rooms render sanitation extremely difficult. Wash basins and drinking fountains, as well as hand-fired coal-burners which constitute the heating system, are similarly antiquated.

The building is small with very few special facilities for a modern educational program. It is also of non-fire-resistive construction, despite its steel staircases, and the Fuller is now entering its seventieth year of service. It is recommended that this school be abandoned soon.

Lowell: 1, 3-6

Built in 1874; 3 1/2 stories; Type IV; red brick exterior
11 classrooms and 1 shop @ 810 sq. ft.

Capacity: 330

The Lowell School is in an advanced state of deterioration. In addition to the normal aging process, Lowell has suffered from vandalism and deferred repairs and maintenance.

Basement toilets are old, damp, and difficult to keep clean. The heating and ventilating systems are archaic and difficult to regulate. The walls, ceilings, and floors of the building require extensive repairs. The building lacks any modern equipment or furnishing and is very poorly suited for effective space utilization. Classrooms and corridors are poorly lit, making the over-all impression of the instructional plant a dismal one.

Concern for the safety of youngsters in the building has led to the sealing off of the third floor. The Lowell School should be abandoned as soon as other space can be found for its pupils. Fortunately, at the time of this writing, its replacement has already been initiated.

Old Agassiz: K-3

Built in 1849; 3 1/2 stories; Type IV; red brick with sandstone trim exterior
5 classrooms and 1 kindergarten @ over 900 sq. ft.

Capacity: 200

Having operated under several names in its long history, this little school was inherited by Boston from the old town of West Roxbury. Presenting a rather attractive facade, the exterior yet has crumbling sandstone sills, lintels, and quoins, as well as cracked brick on all but the recently repointed north wall. Lally colums installed in the middle of classrooms help to hold up the upper stories. The creaking, wooden stairways have steep turns, a hindrance to rapid and safe egress. The cellar of crumbling and water-soaked brick houses two toilet rooms with facilities nearly as old as the building. Under the kindergarten a boiler room holds an uncased and unshielded oil tank.

This 113-year old building could not be economically renovated and should be abandoned as soon as possible.

Wyman: K-3

Built in 1892; 2 1/2 stories; Type IV; red brick exterior
2 classrooms @ 740 sq. ft.; 2 classrooms @ 720 sq. ft.; 1 classroom @ 530 sq. ft.; 2 classrooms @ 410 sq. ft.; 2 kindergartens @ 740 sq. ft.

Capacity: 200

The Wyman School is a deteriorating building that has become obsolete over its long period of use. The exterior and interior walls give evidence of leakage, indicating a need for masonry work. The window frames and sash are rotting badly, and the interior classroom walls are cracked. In addition, the floors are badly worn.

The boiler room is below standard for fire-resistance, and the ventilating system is obsolete. The toilet fixtures are outmoded and the toilet rooms are difficult to maintain in a sanitary condition. Three of the nine classrooms are substantially undersized, a deficiency emphasized by crowded enrollments; all of the classrooms are drab and are poorly lighted. There are no special facilities in the building.

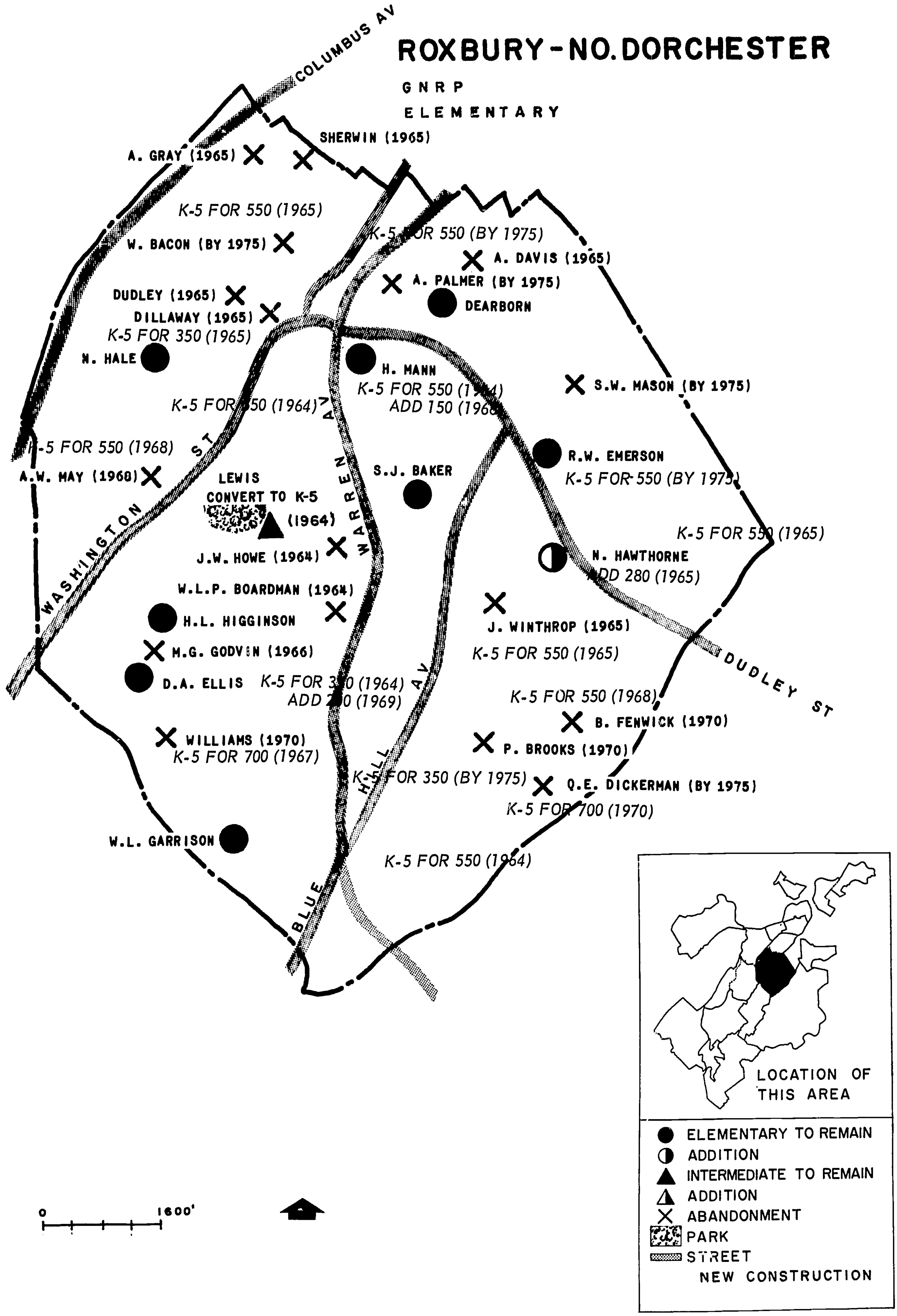
The small capacity and structural deficiencies of the Wyman School recommend its abandonment.

TABLE II

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	K.G.	Other	Recommendations
Agassiz	K-6	290	1893	IV	3½	7	1	5	Abandon 1965
Bowditch	K-6	365	1892	IV	3½	12	2	1	Abandon by 1975
M. Fuller	K-6	280	1892	IV	2½	8	2	1	Abandon 1965
Jefferson	K-6	440	1904	I	3½	15	2	2	Retain as K-5
Lowell	K-6	330	1874	IV	3½	10	1	1	Abandon 1963
J.P. Manning	K-6	150	1941	I*	2	4	1	0	Retain as K-5
E. Mendell	K-6	380	1904	I	2½	10	2	0	Retain as K-5
Old Agassiz	K-3	210	1849	IV	3½	5	1	0	Abandon 1965
Wyman	K-3	195	1892	IV	2½	7	2	0	Abandon by 1975
M.E. Curley	K-3 7-9	1,300	1931	I	2½	37	0	13	Retain as 6-8
T. Roosevelt	1-6,9	560	1923,1924 1941	I	2½	18	0	13	Retain as 6-8

*wood roof



ROXBURY - NO. DORCHESTER
GNRP
ELEMENTARY
COLUMBUS AV
SHERWIN (1965)
A. GRAY (1965)
K-5 FOR 550 (1965)
W. BACON (BY 1975)
K-5 FOR 550 (BY 1975)
A. DAVIS (1965)
A. PALMER (BY 1975)
DEARBORN
DUDLEY (1965)
DILLAWAY (1965)
K-5 FOR 350 (1965)
N. HALE
H. MANN
K-5 FOR 550 (1964)
ADD 150 (1968)
S.W. MASON (BY 1975)
K-5 FOR 350 (1964)
K-5 FOR 550 (1968)
A.W. MAY (1968)
LEWIS
CONVERT TO K-5
(1964)
S.J. BAKER
R.W. EMERSON
K-5 FOR 550 (BY 1975)
K-5 FOR 550 (1965)
J.W. HOWE (1964)
N. HAWTHORNE
ADD 280 (1965)
WASHINGTON ST
WARREN AV
W.L.P. BOARDMAN (1964)
H.L. HIGGINSON
J. WINTHROP (1965)
M.G. GODWIN (1966)
K-5 FOR 550 (1965)
DUDLEY ST
D.A. ELLIS
K-5 FOR 350 (1964)
ADD 200 (1969)
K-5 FOR 550 (1968)
B. FENWICK (1970)
WILLIAMS (1970)
K-5 FOR 700 (1967)
P. BROOKS (1970)
K-5 FOR 350 (BY 1975)
O.E. DICKERMAN (BY 1975)
K-5 FOR 700 (1970)
HILL AV
W.L. GARRISON
K-5 FOR 550 (1964)
BLUE
LOCATION OF
THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION
0
1600'

ROXBURY - NORTH DORCHESTER

The Roxbury-North Dorchester General Neighborhood Renewal Plan area is located south of Downtown Boston and the South End. It is bounded by the proposed Inner Belt on the north, Massachusetts Avenue on the northeast, Columbia Road on the southeast, Seaver Street on the southwest, and Columbus Avenue on the northwest. Its area covers about three and one-third square miles.

Roxbury is an older, densely developed urban area with many of the characteristic problems of such an area: indiscriminately mixed land uses, traffic congestion, an inefficient road system, insufficient recreation facilities, and substandard housing.

Over 81,000 people resided in Roxbury in 1960; this figure represents a decrease of over 25 per cent between 1950 and 1960. However, during this same period, there was a marked increase in the number and proportion of Negroes moving into the area. It is estimated that approximately one-half of the population of this GNRP area and two-thirds of the residents of the first project area (Washington Park) are non-White.

Public school enrollments between 1950 and 1960 followed a different pattern of change from that of the general population of Roxbury GNRP area. The percentage decrease was only 10 per cent, from about 15,500 pupils in 1950 to about 14,000 in 1960. During this period elementary enrollments remained static, while the 1,550 loss occurred in the secondary grades, particularly in the high school years. This suggests that with the decrease in total population, the composition of the population has changed to families with more and younger children and/or families more likely to send their elementary school-age children to public school.

It is expected that the trend of the past ten years will be reversed so that public school enrollments will increase over the next decade. This estimate is based on the following assumptions: that a large in-migration of Negroes into this section of Boston will continue to occur, and that this population characteristically has many children and a large proportion of adults in the child-producing age groups. Evidence of this growth is already demonstrable. The number of pre-school children (under 5) living in Roxbury in 1960 was 25 per cent greater than the number of children in the elementary school-age groups (5-9). By 1965 this age group will reach elementary school age.

Total enrollments are expected to increase by about 6,700 between 1960 and 1970 (see Table I).

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	8,350	9,960	12,430
6-8	3,180	3,670	4,590
9-12	2,520	3,120	3,760
K-12	14,050	16,750	20,780

* figures rounded off to nearest ten

The greatest proportion of this growth is expected in the elementary grades. It must be stressed that this estimate of such dynamic population change needs to be re-examined carefully from year to year and adjustments made when appropriate. Given this growth, however, the study staff has been conservative in translating age group estimates into public school enrollment estimates. It has been assumed that parochial school enrollments will remain constant during the 1960-1970 period. However, in Roxbury the changing racial and religious composition of the population would suggest that the parochial schools will not be able to enroll as many pupils from this GNRP area as they do now. This could further increase public school enrollments. For this reason, most schools recommended for construction below are of a size that may be added to if necessary.

School Buildings

Twenty-four elementary, three junior high and two special city-wide schools are located in Roxbury-North Dorchester. (See Table V) One-half of the elementary school buildings are more than 60 years of age and one-quarter are over 75 years old. Only three elementary buildings have been constructed since World War I, and only one within the last 30 years. Fourteen of the 24 elementary schools are of Type IV construction, i.e., having frames, floors and roofs of wood. This condition is a safety hazard which is accentuated in the six structures that are three and one-half stories tall.

A more detailed description of the obsolete, older buildings is given at the end of this section. However, these structures are generally characterized by the following:

a. interior walls, floors, ceilings and stairs, as well as exterior brickwork, sash, and roofs in various stages of disrepair

b. cracked, chipped, old and dirty paint throughout

c. poorly ventilated, dark and odorous basement toilets

d. low light levels

e. old and obsolete equipment and furniture

f. small sites, often adjacent to factories and business establishments

The three buildings presently used as junior high schools, the Lewis, Campbell and Timilty, are relatively newer than the elementary buildings (two were constructed in 1937) and with appropriate improvements could serve the community for many years.

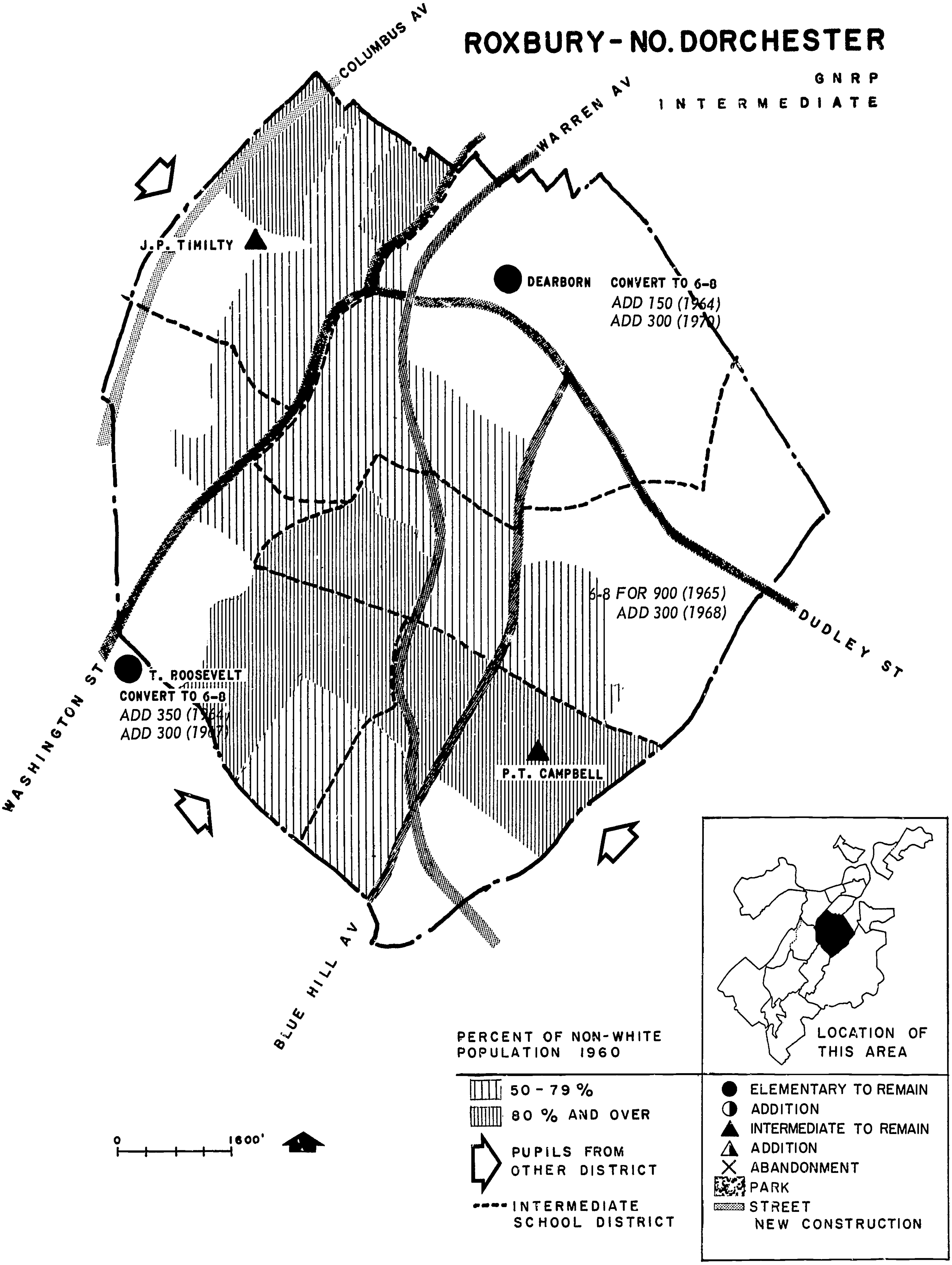
In Roxbury-North Dorchester new school construction is recommended to replace old and obsolete facilities and to house the increased number of pupils expected. It is proposed that where possible, buildings be abandoned and new construction be phased over a period of years (to 1975) to lessen the fiscal impact on the community for any one year. Such phasing also permits adjustments in the program, if the population estimates require revision in future years. This is particularly important in Roxbury-North Dorchester with the expectation of such marked growth.

Intermediate Schools

To arrive at recommendations for the location and construction of intermediate facilities, it was necessary to examine the ethnic compositions of the population and patterns of settlement; the objective: to avoid as much as possible segregated intermediate schools. In the figure titled "Roxbury-North Dorchester Intermediate" the locations of large concentrations of non-Whites are indicated. Five intermediate school districts are proposed (see figure) and would be served by the following schools: Timilty, Campbell, Roosevelt (converted), Dearborn (converted), and a new building. The Timilty, Roosevelt, and Campbell would each also serve about 300 children from adjacent areas. Timilty would draw from Parker Hill-Fenway, Roosevelt from Jamaica Plain and Campbell from Dorchester.

The five intermediate schools would house the ninth grade until 1970 when ninth graders should begin to take advantage of the new high school or other central facilities; also from 1963 on Timilty and Campbell would house sixth graders. However, most sixth grade pupils would attend elementary school until 1970 when the elementary schools would house kindergarten through grade 5. By 1966 the seventh and eighth grades now in Hyde and Sherwin should be housed in Timilty and the new South End intermediate. (See South End) Thus, in 1970 the grade organization would be established throughout: K-5, 6-8, 9-12.

The staging and location of the intermediate building program takes account of pupil location and capacity of buildings. The program is described in Table II and the drawing titled "Roxbury-North Dorchester Intermediate." It should be noted that the program is phased until 1970, and that reviews and adjustments can be made.



ROXBURY - NO. DORCHESTER
GNRP
INTERMEDIATE
COLUMBUS AV
WARREN AV
J.P. TIMILTY
DEARBORN
CONVERT TO 6-8
ADD 150 (1964)
ADD 300 (1970)
6-8 FOR 900 (1965)
ADD 300 (1968)
DUDLEY ST
WASHINGTON ST
T. ROOSEVELT
CONVERT TO 6-8
ADD 350 (1964)
ADD 300 (1967)
P.T. CAMPBELL
BLUE HILL AV
LOCATION OF THIS AREA
PERCENT OF NON-WHITE POPULATION 1960
50 - 79 %
80 % AND OVER
PUPILS FROM OTHER DISTRICT
INTERMEDIATE SCHOOL DISTRICT
0
1600'
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION

TABLE II

ROXBURY - NORTH DORCHESTER INTERMEDIATE

BUILDING PROGRAM

Year		Activity	CAPACITY Increase	CAPACITY Total
1964	-	Convert Dearborn	750	
	-	Expand site and add to capacity, plus 4 special rooms	150	
	-	Convert Roosevelt	550	
	-	Add to capacity, plus 2 special rooms	350	3,770
1965	-	Open new school on Winthrop site, plus 4 special rooms	900	4,670
1967	-	Add to Roosevelt, plus 4 special rooms	300	4,970
1968	-	Add to 1965 school	300	5,270
1970	-	All intermediates become 6-8		
	-	Add to Dearborn	300	5,570

ENROLLMENTS*

Year	6-9	7-9	6-8	Others**	Total
1964	850	2,350	--	560	3,760
1965	1,350	2,490	--	860	4,700
1967	1,450	2,750	--	900	5,120
1968	1,510	2,880	--	910	5,300
1970	--	--	4,590	950	5,540

* figures rounded to nearest ten

** pupils from Dorchester, Jamaica Plain and Parker Hill Fenway

Elementary Schools

To properly locate school buildings, elementary enrollments were tabulated for six subsections of Roxbury, and the capacity of the schools serving these six subsections was estimated. From these capacities were subtracted the capacities of those buildings that should be abandoned for reasons of safety, general physical deterioration, and educational obsolescence. By comparing enrollment with remaining capacity, the building requirements for each subsection of the GNRP area were determined.

The total year-by-year program is illustrated in Table III and the figure titled "Roxbury-North Dorchester Elementary." The program has been phased over a period of 13 years. However, the greatest effort will be required in 1964, 1965, and 1966, when nine buildings which can serve 3,095 pupils are recommended for abandonment. During these first three years, eight new schools and an addition are needed largely to replace those to be abandoned. Between 1966 and 1970 three new schools and two additions are recommended to meet enrollment growth.

In 1970 three additional schools are recommended for abandonment, but less new construction is required for replacement, since kindergarten through grade 5 is to be established as the grade organization throughout the area with a consequent decrease in the number of pupils to be served in the elementary schools.

By 1975 four additional buildings should be abandoned and replaced by new structures. In this last group is the Mason, the only elementary building of Type I construction among the 17 schools recommended for abandonment; it is located in an area becoming increasingly industrialized.

TABLE III

ROXBURY - NORTH DORCHESTER ELEMENTARY

BUILDING PROGRAM

Year	Activity	CAPACITY Abandon	New	Total
1964	- Construct K-6, plus 2 special rooms in northern area of Washington Park Project		550	
	- Construct K-6, plus 2 special rooms in vicinity of Deckard St.		350	
	- Construct K-6, plus 2 special rooms in vicinity of Pleasant and Vine Sts.		550	
	- Construct K-5, plus 2 special rooms in vicinity of Devon and Normandy Sts.		550	
	- Abandon Boardman and Howe	750		
	- Convert Lewis to K-6			10,815
1965	- Construct K-6, plus 2 special rooms in vicinity of Groom St.		550	
	- Construct K-6, plus 2 special rooms near Winthrop School site		550	
	- Add 6 classrooms and 2 kinder-garten to Hawthorne		280	
	- Construct K-6, plus 2 special rooms in vicinity of Bartlett St.		350	
	- Abandon Davis, Dillaway, Dudley and Winthrop	1,435		11,110
1966	- Abandon Godvin and utilize reno-vated Lincoln for special (see Downtown)			
	- Construct K-6, plus 2 special rooms in vicinity of Vernon and Cabot Sts.*		550	
	- Abandon Gray and Sherwin	720		10,940

TABLE III (continued)

ROXBURY - NORTH DORCHESTER ELEMENTARY

BUILDING PROGRAM

Year		Activity	CAPACITY Abandon	New	Total
1967	-	Construct K-6, plus 4 special rooms in vicinity of Humboldt and Homestead Sts.		700	11,640
1968	-	Add to school in vicinity of Pleasant and Vine Sts.		150	
	-	Construct K-6, plus 2 special rooms in vicinity of Bird St.		550	
	-	Construct K-5, plus 2 special rooms in vicinity of Highland Park		550	
	-	Abandon A. May	190		12,700
1969	-	Add to school in vicinity of Deckard St.		200	12,900
1970	-	Convert all elementary to K-5			
	-	Abandon Williams, Fenwick, and Brooks	970		
	-	Construct K-5, plus 2 special rooms in vicinity of Ceylon St.		700	12,630
1975	-	Construct K-5 in vicinity of Bacon		550	
	-	Construct K-5 in vicinity of Otisfield St.		350	
	-	Construct K-5 in vicinity of Marshfield St.		550	
	-	Abandon Bacon, Dickerman, Mason, and Palmer	1,360		12,720

*This location appears particularly well-suited for use of a demountable school. (Chapter II)

TABLE III (continued)

ROXBURY - NORTH DORCHESTER ELEMENTARY

ENROLLMENTS*

Year	K-5	K-6	Total
1964	3,140	7,090	10,230
1965	3,260	7,500	10,760
1966	3,410	7,920	11,330
1967	3,560	8,340	11,900
1968	3,620	8,760	12,380
1969	3,740	9,180	12,920
1970	12,430	--	12,430

* figures rounded to nearest ten

Buildings to Remain

Twelve school buildings serving elementary, intermediate and special pupils are recommended for continued long-term use. However, it must be stressed that a considerable effort needs to be made to rehabilitate these structures in terms of general physical condition, safety, lighting, decor, and educational space. Also site expansion with appropriate development is required in every case. Without a vigorous program of improvement and continuing maintenance, these buildings will not serve the community as long as should be expected.

Summary

Roxbury-North Dorchester contains a large number of obsolete schools with only three of the 29 buildings constructed as recently as the 1930's. Along with the need for abandoning 17 buildings, a change in population composition with a large increase in enrollment is expected. By 1975 it is recommended that a program of orderly abandonment of 17 schools and the construction of 15 elementary, one intermediate and several additions be accomplished.

TABLE IV

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Comments
1964	2	7-9	500	addition
	4	K-6	2,000	
1965	1	7-9	900	
	3	K-6	1,450	
	1	K-6	280	addition
1966	1	K-6	550	
1967	1	7-9	300	addition
	1	K-6	700	
1968	1	7-9	300	addition
	2	K-6	1,100	
	1	K-6	150	addition
1969	1	K-5	200	addition
1970	1	K-5	700	
	1	6-8	300	addition
(by) 1975	3	K-5	1,450	

SUMMARIES OF BUILDINGS TO BE ABANDONED

William Bacon: K-4

Built in 1897; 2 1/2 stories; Type IV; yellow brick exterior
6 classrooms @ 740 sq. ft.; 3 classrooms and 1 kindergarten @ 830 sq. ft.

Capacity: 310

While the immediate Vernon Street neighborhood on which Bacon fronts is pleasant with well-kept churches, a convent and a nursing home next door to the school, the adjacent area to the rear from Oakburn Avenue north past Madison Park is a district of extensive demolition and blight. Bacon itself is relatively the newest and most attractive school for some distance, but it suffers the disabilities of its age and lack of maintenance.

Exterior walls are cracked; doors, window sash and frames are in need of paint. In the basement deteriorating brickwork, crumbling mortar and dampness indicate water seepage. Dark toilet rooms in this area are plagued with cracked and porous paving and are difficult to keep sanitary. Upper floors also show evidence of leakage, while walls and ceilings of classrooms and corridors are cracked. Paint on the health room ceiling is in particularly bad condition. The composition paving applied to treads of the steel staircases is very badly worn, completely through in some spots. Illumination throughout is substandard, and heating is by hand-fed coal boilers.

There are no special facilities in the building. Cost of refurbishment and renovation required to make this into a desirable elementary structure would be better applied towards a new and fire-resistive structure of modern design.

W. L. P. Boardman: K-4

Built in 1900; 2 1/2 stories; Type IV; red brick exterior
7 classrooms @ 800 sq. ft.; 1 kindergarten @ 810 sq. ft.; 2 play areas in basement, combined teachers' room - health room

Capacity: 250

Three-decker dwellings surround the Boardman School on three sides. It is located but a few feet from the street, and has a severely limited play area to the side and rear of the building. Although there is some evidence of recent maintenance, this structure has a number of structural and educational deficiencies. Exterior walls are cracked and chipped and need repointing in a number of areas. Interior walls are also cracked and water damage has discolored both ceiling and walls. Windows need painting and caulking.

Dark varnished woodwork and light colored walls create excessive brightness contrasts in the classrooms. Each room contains but five incandescent light fixtures which cannot provide proper illumination. Toilet rooms have composition floors which absorb moisture and dirt and make difficult the maintenance of acceptable sanitary standards. Playrooms which are also located in the basement are small and drab and offer little space for group activity.

The over-all condition of Boardman indicates that it should be abandoned for school purposes in the next few years.

Phillips Brooks: K-6

Built in 1899; 3 1/2 stories; Type IV; red brick exterior
12 classrooms and 3 kindergartens @ 900 sq. ft.; 1 shop and 1 classroom in basement; 1 auditorium @ 1,870 sq. ft. located on third floor

Capacity: 510

Phillips Brooks is an attractive building when first seen in its neighborhood of three-story frame and old-fashioned brick houses. The promise of its exterior is not borne out in an appraisal of its interior, however. Furthermore, the need for repointing of the exterior is demonstrated by signs of leakage on the interior walls.

The wooden corridor walls are warped, and many of the window frames and sills have rotted. Typical of buildings of this design, the basement toilets are poorly located to serve the second and third floors. The building cannot easily be adapted for changes and modifications in the use of its spaces. Dark woodwork and poor natural lighting in some areas create a drab environment.

In spite of large classrooms and modernized service facilities, the out-dated design, the inflexible arrangement of its classrooms, and the structural deficiency of Type IV construction combine to support the judgment that the building should not be included in the city's long-range planning.

Aaron Davis: K-3

Built in 1870; 3 1/2 stories; Type IV; red brick exterior
11 classrooms @ 620 sq. ft.; 1 teachers' room; 1 health room

Capacity: 275

The 90-year old Aaron Davis School stands in stark contrast to the newer, more modern public housing structures in its area. It is also located in close proximity to the Green Shoe Company, the Howard Storage Company, and a meat-packing concern.

A number of rooms have walls which are cracked and out-of-plumb. Plaster has fallen in several spots and ceilings show considerable evidence of water damage. The rooms are too small for normal elementary classes and cannot be easily enlarged. They are dark due to lack of fresh paint, dark, varnished woodwork and substandard lighting. Exterior portions of this structure also show evidence of deterioration. Window casings are dry, cracked and have not been painted in years. Sash are deteriorating and breezes cause the windows to rattle in their frames.

This building has outlived its usefulness as a school for several other reasons. The fixtures are substandard. The wood frame interior, wooden stairs and open interior design do not meet contemporary requirements of fire resistance. Exit doors have worked loose on their hinges and are rotting. Some of the old toilet fixtures have been replaced, but it is still difficult to maintain reasonable standards of sanitation in the basement rooms.

Sanitary, safety, and educational limitations combine to support the recommendation that the Davis be abandoned.

Quincy Dickerman: K-6

Built in 1915; 2 1/2 stories; Type IV; red brick exterior
7 classrooms @ 700 sq. ft.; 7 classrooms @ 600 sq. ft.; 1 kindergarten @ 900 sq. ft.; 1 sewing room

Capacity: 435

The Quincy Dickerman School is located among apartment buildings contemporary to its age and style of architecture. It has a pleasant grass setback and is adjacent to a playground. However, evidence of crumbling mortar and cracking on the building itself demonstrate that much of the brick needs repointing.

The interior construction is wood frame, and the worn, wooden stairs in particular constitute a potential safety hazard. Classrooms have been painted in the past several years, but there are still several cracks in the walls. A major interior crack from the top to the bottom of the building has re-opened since being patched and painted. Classrooms are small and cannot be easily enlarged, and fixed furniture in all but the kindergarten room adds to the inflexible nature of the space. Light fixtures in the building do not provide adequate light, leaving the rooms dark and drab.

Antiquated toilet facilities located in the basement are difficult to keep clean, and like the rest of the building, the basement rooms have no mechanical ventilation. It is recommended that this building be abandoned soon.

Dillaway: K-6

Built in 1882; 3 1/2 stories; Type IV; red brick exterior
11 classrooms and 1 kindergarten @ 820 sq. ft.; 2 basement playrooms @ 580 sq. ft.; 1 auditorium, 1 health room, 1 principal's office

Capacity: 370

The Dillaway School is located in a blighted neighborhood next to the elevated tracks and surrounded by heavy traffic. Structurally, it has a wood frame interior with wooden corridors and stairs. The foundation and walls evince leakage.

Classrooms are drab and the lighting is poor. Boilers are coal burning, fired by hand, with an obsolete control system. The porous cement floors in the lavatories collect dirt and moisture and prevent maintenance of adequate sanitary standards. Except for an auditorium, no special facilities are available.

The cost of renovation necessary to make this school meet minimum standards cannot be justified in such an old building of Type IV construction, and abandonment is recommended.

Dudley: 3-6

Built in 1874; 3 stories; Type IV
13 classrooms @ over 800 sq. ft.; 1 woodworking shop

Capacity: 390

Heavy traffic along its front, a limited land area, and a complete lack of outdoor play space characterize the Dudley's site. The building itself has cracked exterior walls with resultant interior leakage, while window sash are loose and rattle in their frames.

Classrooms are dark, ventilation is substandard, and basement toilets are difficult to keep clean. Wooden stairs and corridors and a third floor auditorium typical of buildings of this era cannot be considered satisfactory by contemporary standards. These conditions prescribe that the Dudley be abandoned soon.

Benjamin Fenwick: K-6

Built in 1912; 2 1/2 stories; Type IV
10 classrooms and 1 kindergarten @ 670 sq. ft.; 1 kindergarten @ approximately 730 sq. ft.

Capacity: 330

The Fenwick School is in an advanced state of deterioration. Its plant is faulty in several respects: Exterior masonry is chipping and cracking; repointing is badly needed. Some window frames are rotting; all need painting and caulking. Structurally, steel columns have had to be installed to reinforce sagging stairs.

Interior walls and ceilings are cracked and show the effects of much water leakage. Classrooms, corridor and stairway floor surfaces are badly worn. Classrooms are small, dark, and dirty. The heating system is coal burning and fired by hand, and there is no extensive ventilation system except for gravity flow ducts and windows. The building also lacks the special facilities its size requires according to present-day standards.

Renovation of this building would be costly, and because provisions for special facilities would considerably decrease its capacity, it is deemed economically unsound. Abandonment of the Fenwick is the practical course of action.

M. Gertrude Godvin: Special School, 4-12

Built in 1865; 2 1/2 stories; Type IV
6 small classrooms; 1 sewing room and 2 cooking rooms

Godvin is presently used to house boys who have special discipline problems. Although the school and its annex are located adjacent to an attractive elementary school on a large, pleasant site, the structure itself was designed for a home; the shop was originally a stable. To convert it to practical school use, even if feasible, would be uneconomical, since along with other defects of its age, it has substandard lighting, deteriorating fixtures, windows in need of caulking, cracked and leaking interior walls, peeling plaster and worn floors.

Fire safety deficiencies are also evident: wooden stairways lead from the second to the third floor; the attic is used to store supplies; some doors are difficult to open; and the basement kitchen smelled of gas fumes at the time of inspection.

All these factors combine to demonstrate the need for abandonment of the Godvin in the near future.

Asa Gray: K-3

Built in 1877; 2 1/2 stories; Type IV; brick exterior
8 classrooms @ 650-780 sq. ft.

Capacity: 230

The Asa Gray, 85-years old and located in a commercial district, shares many of the problems of its contemporaries: the boiler is hand-fired; the exterior needs repointing and painting; window sash are loose; walls and ceilings show evidence of leakage; lighting is dim; and the corridors and stairs are dark and hazardous. In addition, the dark basement toilet rooms are hard to keep sanitary and odor-free because of their porous floors.

Safety limitations inherent in its wood frame construction, along with these other deficiencies of design, age, disrepair and limited capacity, recommend the abandonment of this building soon.

Julia Ward Howe: K-6

Built in 1868; addition in 1923; 3 1/2 stories; Type IV
12 classrooms and 2 kindergartens @ 850 sq. ft.; 2 classrooms @ 800 sq. ft.; 1 sewing room and 1 remedial reading room in cubicles off auditorium; 1 basement playroom and 1 basement cafeteria converted into classrooms.

Capacity: 500

This school is approaching its century mark, and it shows marked evidence of deterioration from age and insufficient maintenance. The outmoded fenestration in the original portion admits little sunlight, while the artificial lighting is too far below standard to offset this. Window sash need paint; outer doors are loose on their hinges, wooden floors and wooden stairs of the earlier part of the building are worn and creaking. Walls and ceilings are cracked and show signs of leaks.

An overcrowded school in a blighted neighborhood, the Howe requires more money to bring it up to minimal present-day standards than is economically desirable, considering its non-fire resistive structure.

Samuel F. Mason: K-6

Built in 1905; 3 1/2 stories; Type I; red brick exterior
13 classrooms and 1 kindergarten @ 720 sq. ft.

Capacity: 430

The Mason is located in an area of increasing industrial activity and diminishing public school enrollments. Maintenance has been deferred and deterioration has been unchecked for several years. Walls are cracked, leaking, and grimy and have needed painting for a number of years. Certainly, if children are to be kept in the building for any time, its interior should be thoroughly scrubbed and painted.

The Mason requires renovation of its boilers. It lacks any large indoor play or assembly space, and is not adaptable to the redesign or rearrangement of spaces. The basement toilets, though serviceable, are far-removed from the rest of the building.

With the removal of population from its vicinity, the Mason School should be abandoned.

Abby W. May: K-3

Built in 1893; 2 1/2 stories; Type IV; red brick exterior
4 classrooms @ 840 sq. ft.; 2 classrooms @ 760 sq. ft.; 2 basement playrooms @ 860 sq. ft.; 1 health room

Capacity: 190

The Abby May building is a small, deteriorating structure of wood frame interior, located in a blighted neighborhood near the elevated tracks. Visually, it is a depressing structure. The foundation, walls, and ceilings show numerous leaks and cracks. The wooden beams in the basement sag and show evidence of structural deterioration. The classrooms are drab and poorly lighted; the window frames and sills are rotting. Heating and ventilation are substandard and toilet facilities are dark and obsolete.

The size, location, and physical condition of this building indicate that it should be abandoned as soon as possible.

Albert Palmer: K-3

Built in 1895; 2 1/2 stories; Type IV; red brick exterior with cupola
4 classrooms @ 720 sq. ft.; 1 classroom and 1 kindergarten @ 775 sq. ft.

Capacity: 190

A solid building and quite attractive for its era, this little school has received some major maintenance in recent years. Set in the midst of a housing project, its architecture contrasts favorably with its surroundings. The interior is less attractive than its exterior, being dark and in need of paint. Natural light is diminished by heavy mesh screens protecting the narrow, widely-spaced windows. The basement sanitary spaces contain antiquated plumbing fixtures and porous paving. Cracked plaster and wooden floors, slightly worn in the overly spacious hallways, suggest the age of this structure.

The fact that the two staircases are of steel mitigates somewhat the negative aspect of the wooden frame construction with respect to fire safety. However, this school is still an old building, basically below modern school standards and is an uneconomical unit to be maintained indefinitely within the school system. It might have some value for other usage.

Sherwin: 3-8

Built in 1870; 3 1/2 stories; Type IV; red brick exterior
5 classrooms @ 1,000 sq. ft.; 8 classrooms @ 900 sq. ft.; 3 shops.
Voting room in basement, 1 administrative office, 2 teachers' rooms

Capacity: 390

This building from the U. S. Grant era is located in the midst of structures in a similarly deteriorated condition. Directly adjacent to the school is an abandoned hotel which has been vandalized and ransacked. Another blighted area in which substantial demolition has occurred extends to the south and east of the building, while Madison Park is located directly across the street. Although the park covers a full city block, it is seldom used for sports activities and is poorly maintained.

The building is 90 years old, has an all-wood frame interior, open wood stairways, an auditorium on the third floor, plus a roof supported by dry wooden timbers - all conditions comprising a substantial fire-safety deficiency. Walls are cracked beyond normal repair, and plaster has separated from the lath because of continuous water damage. Neither the inside nor the outside of the building has been painted for several years. Floors are badly worn and cracked in a number of places. As a result of leaking walls, peeling paint, faulty fixtures and inadequate ventilation, basement toilets are unsanitary and malodorous.

The exterior is also in poor condition, door and window frames are cracked and need paint. Window sash are loose in their frames, in need of caulking and painting, and are rotten in spots.

These conditions suggest that this building be replaced in the immediate future.

Williams: K-2

Built in 1892; 2 1/2 stories; Type IV; rough yellow brick exterior
3 classrooms and 1 kindergarten @ 770 sq. ft.

Capacity: 130

An attractive structure, this primary school has had better-than-average maintenance and care, and only a few minor structural defects exist. A new roof and oil burner have been installed.

Unfortunately, the design is obsolescent insofar as modern educational standards are concerned. Not only is the building basically of wood frame interior, with open stairwells, and with sanitary facilities relegated to the somewhat damp basement, but the kindergarten is below desirable space requirements. Ceilings and walls show cracks where they have not been painted for a while. The narrow window areas may contribute to the architectural success of the building, but they detract from its value as a school. Lighting is substandard. Wood floors in rooms and corridors are worn except in the kindergarten.

Practically, it would be difficult and expensive to remedy these conditions; furthermore, it may justly be considered uneconomical to operate a small unit within this area of the city where such space is not necessary. However, it does have definite value as an asset to be sold for other than school purposes.

John Winthrop: K-6

Built in 1911; 2 1/2 stories; Type I; red brick exterior
12 classrooms @ 670 sq. ft.; 2 classrooms and 1 kindergarten @ 700 sq. ft.; 1 sewing room on 2nd floor and 1 woodshop in basement. 1 auditorium on 1st floor. (2 classrooms above are devoted to conservation of eyesight classes.)

Capacity: 400

Located in a mixed industrial and residential neighborhood which has been deteriorating for some time, this school has received little major maintenance in recent years. The roof leaks, outside walls need repointing, coping stones especially lack mortar. Crumbling outside steps have had modest repairs, but cement sills and trim are crumbling away. Windows are in disrepair with broken cords, frames askew, sills and other wood rotting.

Inside, the ceilings and walls are cracked throughout and show signs of leakage, especially on the second floor. Wooden floors and staircases are worn, and there are no fire doors separating stairwells and corridors. Although 12 of the 15 rooms have access to fire escapes, some of the doors stuck badly at the time of inspection. There is no panic hardware on exits from the basement and the rear of the auditorium.

Lighting is generally substandard, although the two conservation of eyesight classes in the school have had special lighting installed this past winter. Heating is by hand-fed coal boilers. Plumbing facilities are antiquated: slate wash basins combined with water bubblers on upper floors are only slightly more attractive than the slate troughs, wooden stalls and overhead tanks, broken door hinges and hard-to-clean, cracked composition paving of the basement toilets.

These deficiencies illustrate why it is judged that abandonment and replacement of this building would be more economical and would provide better educational opportunities than attempting the extensive renovation these observations show is necessary.

TABLE V

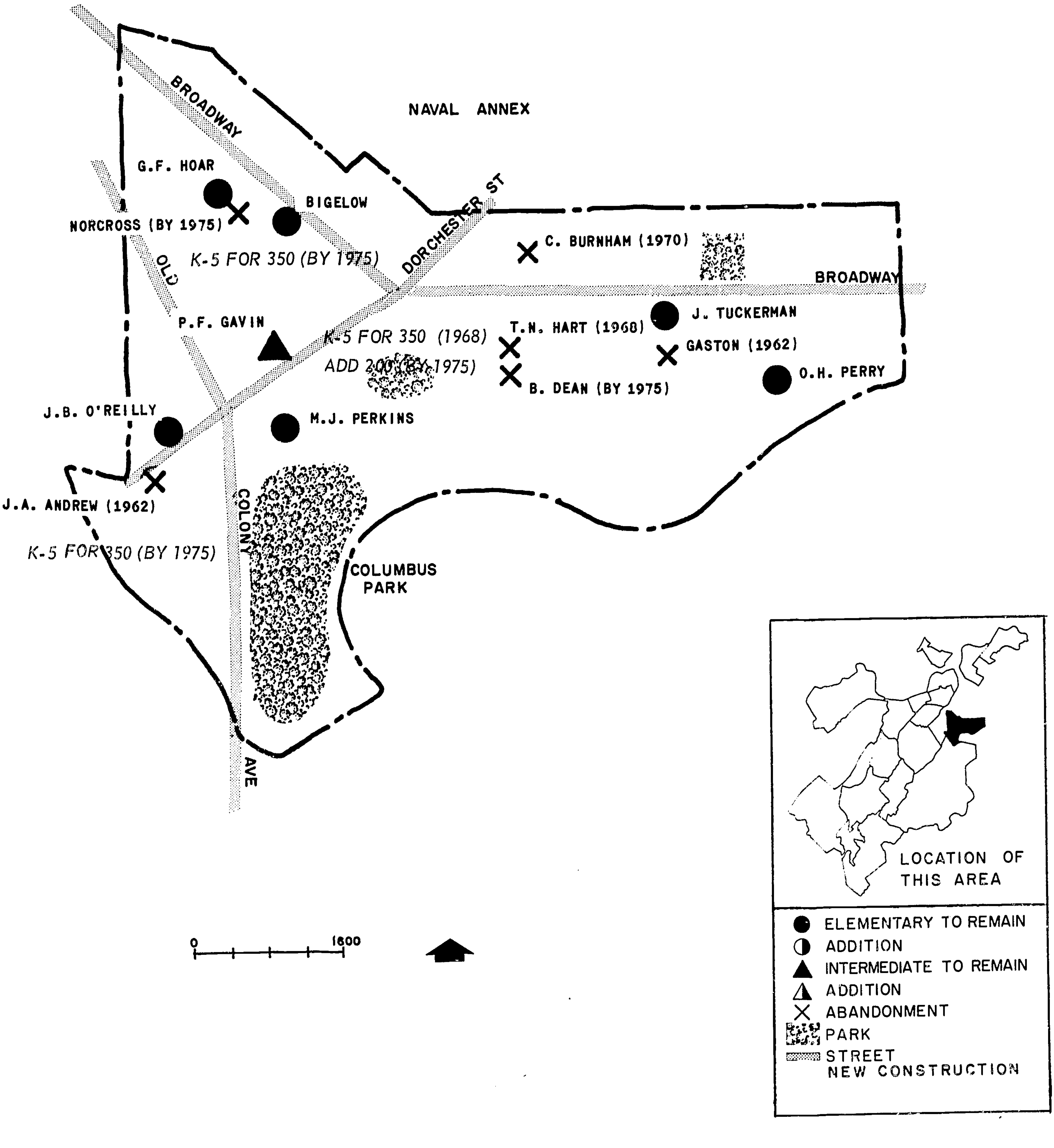
RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	Classrooms K.G.	Classrooms Other	Recommendations
. Baker	K-6	710	1906	I	3½	21	2	3	Renovate & expand site
. Bacon	K-4	310	1897	IV	2½	[illegible]	1	0	Abandon 1975
.L.P. Boardman	K-4	250	1900	IV	2½	8	1	0	Abandon 1964
. Brooks	K-6	510	1900	IV	3½	12	3	1	Abandon 1970
. Davis	K-3	275	1870	IV	3½	11*	0	0	Abandon 1965
Dearborn and Annex	3-8	630 210	1906 1921	I I	3½ 3	21 8	0 0	1 4	Convert to 6-8 (1964)& Renovate & expand site
. Dickerman	K-6	430	1915	IV	2½	14	1	1	Abandon 1975
Dillaway	K-6	370	1882	IV	3½	11	1	0	Abandon 1965
Dudley	3-6	390	1874	IV	3½	13	0	2	Abandon 1965
D.A. Ellis	K-5	640	1932 1959	I	2½	20	2	3	Develop adjacent Godvin site
R.W. Emerson	K-6	350	1924	I	2½	10	1	2	Renovate & develop site
B. Fenwick	K-6	330	1912	IV	2½	10	2	0	Abandon 1970
W. Garrison	K-6	690	1910,1918 1923,1929	I	2½	24	2	2	Renovate & expand site
A. Gray	K-3	330	1877	IV	2½	7	1	1	Abandon 1966
N. Hale	K-5	300	1909	I	2½	10	2	0	Renovate & expand site
N. Hawthorne	K-3	280	1906	I	3½	8	1	0	Renovate & close street to playground
H.L. Higginson	4-6	300	1922	I	2½	12	0	1	Renovate & expand site
J.W. Howe	K-6	500	1868 1927	IV	3½	14	2	2	Abandon 1964
S. Mason	K-6	430	1905	I	3½	13	1	0	Abandon 1975
A. May	K-3	190	1893	IV	2½	5	1	0	Abandon 1965
A. Palmer	K-3	190	1895	IV	2½	5	1	0	Abandon 1975
Sherwin	3-8	390	1870	IV	3½	13	0	3	Abandon 1966
Williams	K-2	130	1892	IV	2½	3	1	0	Abandon 1970
Winthrop	K-6	400	1911	IV	2½	14	1	2	Abandon 1964
H. Mann	Spec.	-	1929	I	3½	23	2	7	Renovate & expand site
M.G. Godvin	Spec.	-	1865	IV	3½	6	0	4	Abandon 1966
Lewis	1,3-4 7-9	840	1912 1926	IV	3	25	0	7	Convert to elementary (1964) & renovate
P.J. Campbell	7-9	1,140	1937	I	3½	36	0	16	Renovate & expand site
J. Timilty	7-9	830	1937	I	3	26	0	12	Renovate & expand site

*2 used as kg., but too small

SOUTH BOSTON

GNRP



SOUTH BOSTON

Although a few children from the northern part of Dorchester are presently using its educational facilities, South Boston can be regarded as a geographically distinct region. To the west is South Bay and an industrial area. North of the GNRP area is an expanse of more industry, manufacturing, and other commercial enterprise, then Fort Point Channel and the harbor; directly to the east and to the south is the waterfront. The only physical linkage of this peninsula to the mainland is to the southwest and even this, in effect, is severed by the Southeast Expressway and a railroad.

The highest population densities can be found in South Boston's five public housing sites. Commercial districts are spread out along main streets, such as Broadway and Dorchester Avenue. The six schools here recommended for abandonment have an average age of 79 years.

The grade 10-12 enrollment in South Boston is expected to increase only slightly during the next decade. This assures us that South Boston High School can continue to house part of the area ninth grade, as at present. The P. F. Gavin intermediate school, with the help of South Boston High School, can accommodate the area's children in grades 7-9, as they do now. Beginning in 1967, there will also be expanded room for ninth graders in central city high schools. In 1970, when the full K-5, 6-8, and 9-12 organization is established, Gavin should house grades 6-8.

The elementary schools of South Boston may be organized on a K-6 basis until 1970, when they should convert to K-5 organization.

Current enrollments and projections indicate that by the fall of 1962 the Tuckerman-Gaston-Perry school complex enrollment will be enough smaller than their combined capacity that the Gaston school can be abandoned. Similarly, the Andrew building can be eliminated from the John A. Andrew district, with O'Reilly and M. J. Perkins housing all pupils. In 1965, the Dorchester children will have their own facilities and need not travel to South Boston. (See Dorchester Recommendations.) By 1968, the Hart School should be abandoned and this will necessitate a new 350-pupil capacity school in that area. When the schools are reorganized in 1970, Choate Burnham may be discontinued.

Between 1970 and 1975, use of the Dean School should be discontinued as well and a 200-student capacity addition made to the new Hart School. The Norcross should also be abandoned and two new 350-pupil capacity schools built - one a few blocks south of Norcross and the other near the Andrew site and Old Harbor Village housing project. The two new schools should be located and designed to be expandable, thus able to absorb the pupils from Bigelow and O'Reilly when these structures are eventually abandoned in the years after 1975.

Monsignor Patterson Diocesan Grammar School will close in June, 1962. It cannot be determined with accuracy at this point just how many of its South Boston pupils may enter the public school system, but there will be sufficient immediate capacity to accommodate any conceivable proportion of them on the elementary level.

TABLE I

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Comments
1968	1	K-6	350	
1970-75	1	K-5	200	addition
	2	K-5	700	expandable

SUMMARIES OF SCHOOLS TO BE ABANDONED

John A. Andrew: 4-6

Built in 1876-77; 3 1/2 stories; Type IV; red brick exterior
12 classrooms @ 880 sq. ft.; 1 shop in basement @ 900 sq. ft.;
1 home economics room @ 880 sq. ft.; third floor auditorium

Capacity: 360

Hemmed in by surrounding commerce, the Andrew School looms over busy, traffic-filled Andrew Square. The exterior doors, window frames, and sash require caulking and painting. In the wooden interior, signs of leakage are immediately visible; walls and ceilings need repair and painting, and interior window and door frames are loose and rotting; they leak, need replacing and/or painting. Stairwells are steep, open and wooden, while corridors are dark and the rooms poorly furnished. Lighting is poor throughout. Obsolescent and malodorous toilets are located in the basement. The boilers are hand-fired with coal.

Even if renovated, the building would still suffer from its location and lack of space. More importantly, the dry, all wood frame interior and the open stair wells make the structure deficient in terms of fire resistance, thus its abandonment soon is recommended.

Choate Burnham: K-4

Built in 1894; 2 1/2 stories; Type IV; brick exterior
7 classrooms @ 700 sq. ft. and one kindergarten @ 820 sq. ft.

Capacity: 250

Retention of this building would have to depend on the following work: repairing and repointing exterior masonry; replacing some window sash, painting and caulking all exterior woodwork; repairing wall and ceiling water leakage; replastering where necessary; replacing classroom and corridor flooring; painting interior of building; completely renovating all sanitary facilities (toilets, wash basins, and drinking fountains).

If this work were accomplished, the building would still be old and of Type IV construction. Presently, three of its eight classrooms are idle and indications point to a declining student population in this area.

It is therefore recommended that Burnham School be abandoned as soon as the schedule permits. This abandonment may be delayed for a few years because of a satisfactory emergency egress situation. However, the difficulty encountered in opening some exit doors should be remedied.

<u>Benjamin Dean</u>: <u>K-4</u>

Built in 1899; 2 1/2 stories; Type IV; red brick exterior
6 classrooms @ 770 sq. ft.; 2 kindergartens @ 770 sq. ft.

Capacity: 240

The Benjamin Dean shares a limited site with the Thomas N. Hart School. The exterior of the building is deteriorating: repointing is badly needed, and the sash and trim need to be repainted. Although the interior has been well maintained, the building is obsolescent in design and numerous deficiencies exist.

There is no adequate indoor play space and the building cannot be expanded to include such facilities. The toilet fixtures are old-fashioned and the materials used to construct the basement toilet rooms are difficult to maintain at sanitary standards. The heating system, based on hand-fired coal boilers, is handicapped by the loose window sash which admit drafts. The ventilation system is inoperative.

The wooden beams and ceilings in the basement and the other wood used in construction of this building are basic deficiencies in modern fire-resistance design. The Dean School, for these reasons, should be abandoned within ten years.

<u>Gaston</u>: <u>4-6</u>

Built in 1872; 3 1/2 stories; Type IV; red brick exterior
11 rooms @ 900 sq.ft.; 2 sewing rooms on 3rd floor @ 900 sq. ft.;
1 auditorium on 3rd floor (not used).

Capacity: 330

The Gaston School has received some renovation in recent years. The rooms have been painted, additional drinking fountains and modern sinks installed, new lighting has been placed in the classrooms, new boilers installed, and the exterior waterproofed. Despite these repairs, Gaston still is an undesirable building for a modern school.

It has a frame interior, all stairs and roof beams are wooden. A third floor auditorium, although apparently not used for large groups, adds to the fire safety deficiencies in this building. The lavatory facilities are obsolete and located in dark basement rooms.

There is considerable cracking in the third floor ceiling and the basement walls leak and are deteriorating. There is a large amount of waste space in the interior halls, auditorium, etc. that must be heated in the winter. There is no library or all-purpose room in the building. The window frames are rotting badly and the exterior of the building, despite its waterproofing, shows additional deterioration. These deficiencies support the recommendation that the Gaston be abandoned.

Thomas N. Hart: 4-6

Built in 1889; 3 1/2 stories; Type IV; red brick exterior
13 classrooms @ 930 sq. ft.; 1 basement shop @ 1,290 sq. ft.; third floor auditorium

Capacity: 390

The Hart School is a tall old obsolescent structure which has had little recent maintenance and which no longer can provide acceptable facilities for housing a school program. There are no special facilities except an auditorium, which is located on the third floor.

The ill-lit classrooms, while large, have numerous deficiencies. Their ceilings and walls are cracked and give evidence of leakage; the blackboards are worn out; and large sections of dark woodwork surround the windows creating excessive brightness contrasts. The window sills and frames are rotting and sash are loose. Wooden floors are cracked and badly worn.

The interior basement walls evince considerable leakage. Toilet facilities located here have antiquated fixtures, are poorly lighted, damp, and difficult to maintain in a sanitary condition.

The conditions of obsolescence and deterioration present in this building render renovation unfeasible: this building should be abandoned soon.

Norcross: K, 2-6

Built in 1867; 3 1/2 stories; Type IV; red brick exterior
11 classrooms @ 960 sq. ft.; 1 kindergarten @ 960 sq. ft.; 2 home economics rooms @ 920 sq. ft.

Capacity: 380

Norcross, only 5 years away from the century mark, shares a site with the Hoar School. A tall, brick structure of mid-19th century design, the building has served only elementary school girls for many years.

The three stories above the basement are reached by steep, wooden stairs. Varnished wooden wainscoting lines the corridors, interior walls are cracked and show signs of leakage. Floors in classrooms and corridors are predominantly wooden and badly worn. Ceilings show evidence of leaks and loose plaster is separating from its lath in places. Window sash and outside doors are deteriorating. There is some cracking and chipping of the outside walls.

Claasrooms show excessive brightness contrasts between the color of the walls and natural light. Artificial light does not alleviate this condition. The building has a manually controlled and operated, coal-fired heating system with no mechanical method for supplementing window ventilation.

The basement toilet is not readily accessible from the upper parts of the building; it is difficult to keep clean and free from odors. The location of the auditorium on the top floor constitutes a safety deficiency and limits its use as an instructional or assembly area.

The Norcross has had reasonably good routine maintenance, but Type IV construction, inflexible design, and outdated facilities suggest abandonment within the next 10 years.

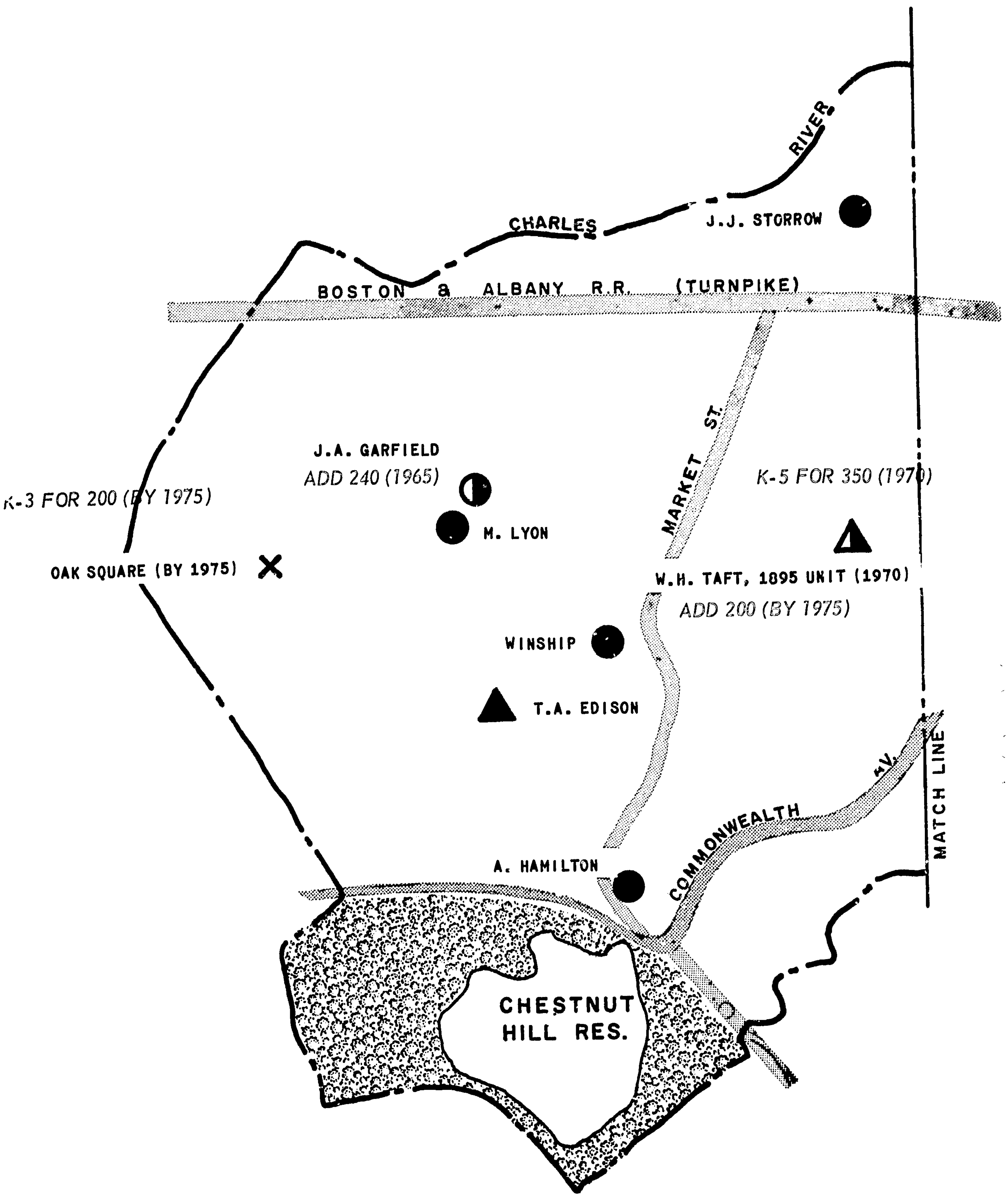
TABLE II

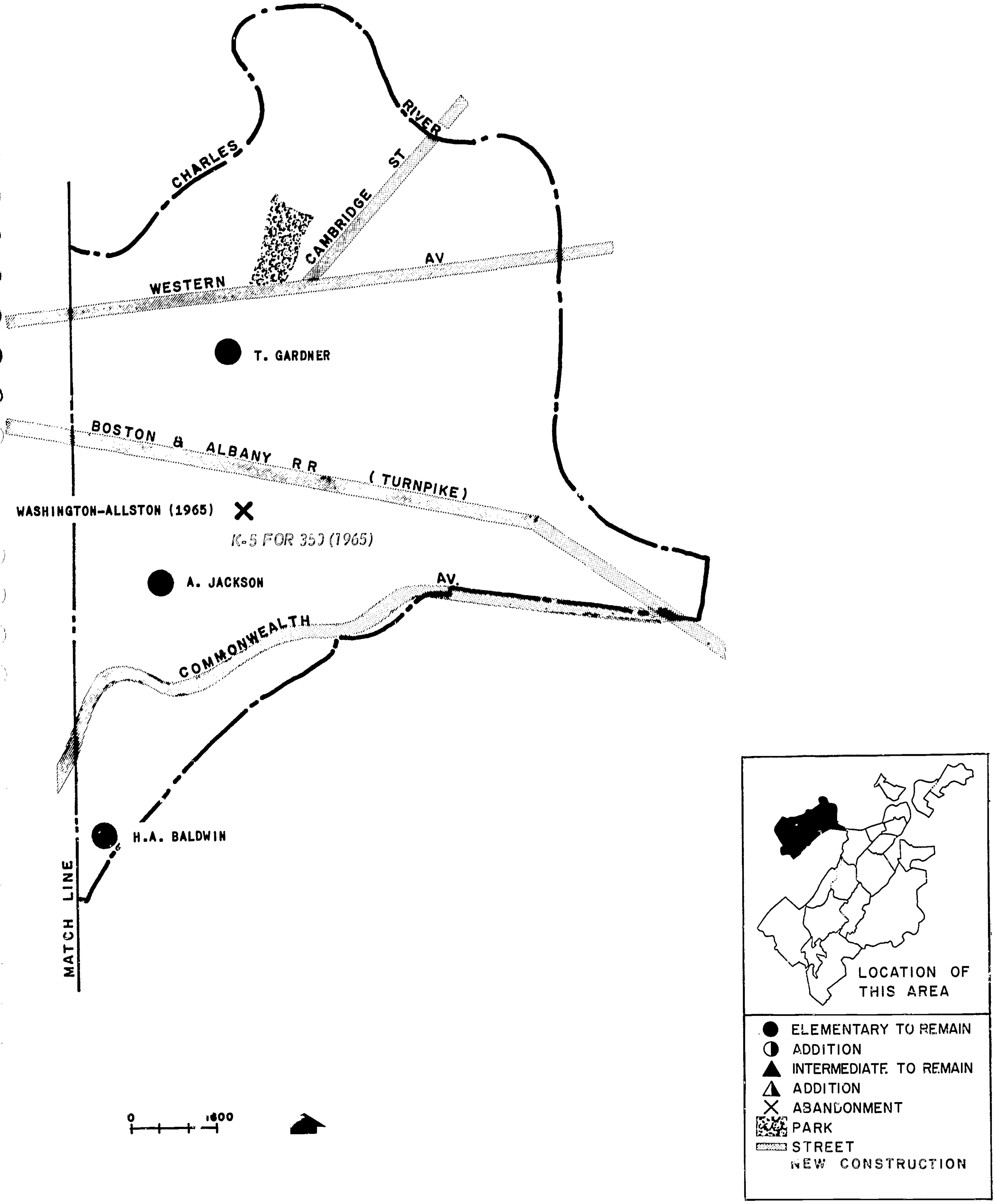
RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
J.A. Andrew	4-6	360	1877	IV	3½	12	0	3	Abandon 1962
Bigelow	K-6	610	1901	IV	3½	17	2	2	Retain as K-5
C. Burnham	K-4	200	1894	IV	2½	7	1	0	Abandon 1970
B. Dean	K-4	240	1899	IV	2½	6	2	0	Abandon by 1975
Gaston	4-6	330	1872	IV	3½	11	0	3	Abandon 1962
T.N. Hart	4-6	390	1889	IV	3½	13	1	0	Abandon 1966
G.F. Hoar	K-3	250	1914	IV	3½	8	4	0	Retain as K-5
Norcross	K,2-6	380	1867	IV	3½	11	1	2	Abandon by 1975
J.B. O'Reilly	K-3	430	1905	I	3½	12	2	0	Retain as K-5
M.J. Perkins	K-4	425	1926 1952	I	2½	12	2	0	Retain as K-5
O.H. Perry	K-6	430	1904	I	3½	13	1	1	Retain as K-5
J. Tuckerman	K-3	310	1905	I	2½	9	1	0	Retain as K-5
P.F. Gavin	7-9	1,050	1936	I	3½	35	0	15	Retain as 6-8

BRIGHTON

ROVEMENT AREA





CHARLES RIVER
CAMBRIDGE ST
WESTERN AV
T. GARDNER
BOSTON & ALBANY RR (TURNPIKE)
WASHINGTON-ALLSTON (1965)
K-5 FOR 350 (1965)
A. JACKSON
COMMONWEALTH AV.
H.A. BALDWIN
MATCH LINE
0
1600
LOCATION OF THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION

BRIGHTON

The Brighton Improvement Area is characterized by diversity. The natural topography includes relatively high hills in the southwest and northwest and lowlands along the Charles River. It is surrounded by Brookline, Newton, Watertown, and Cambridge, and is connected to the rest of Boston by a narrow neck of land in the Back Bay. The existing road network reflects the influence of the hilly topography, as well as Brighton's central geographical position. This network of busy streets divides the district into pieces and creates numerous difficulties in providing centrally-located schools.

Brighton is primarily residential. The section north of the Boston & Albany railroad, however, is of mixed industrial and residential use and contains pockets of blight and deterioration. The section along Commonwealth Avenue contains numerous large apartment buildings and has the highest population density in Brighton. In the western section, two-family and single homes predominate. The population is substantially middle-income and is quite heterogeneous in ethnic background.

This report divides Brighton into three major subdivisions to consider elementary school needs. The section north of the Boston & Albany railroad will constitute one area; the section south of Commonwealth Avenue constitutes another area; and the central section between the two boundaries cited will comprise the third. This latter section is by far the largest and most diverse of the three and is traversed by many major traffic arteries.

Prior to 1965 no major changes are proposed for the Brighton schools. The pupil population can be accommodated in the present buildings up to 1965, if greater use is made of the Winship and Thomas Edison schools.

RECOMMENDATIONS FOR 1965

By 1965 it is recommended that the Brighton schools be organized on a K-5, 6-8, 9-12 basis. The growth in the elementary school population, the excess capacity in the senior and junior high schools and the proposed city-wide change to a four-year high school all indicate that such an organization is desirable if optimum use is to be made of Brighton's school buildings.

Brighton High School has a rated pupil capacity of 1,330, excluding the shop spaces. The grade 9-12 population attending Brighton High School, including the Cooperative Program, is expected to be 1,250 in 1965. By 1967, the Cooperative Program should be merged in the central Trade School, thus permitting the anticipated growth in the number of high school students to be accommodated at Brighton High at least through 1970.

Two junior high schools currently serve the Brighton area. The Thomas A. Edison School has a rated capacity of 1,050 pupils, but is operating far under that figure. The W. H. Taft Junior High School occupies the older section of the Taft building and is operating at capacity. The pupils that cannot be accommodated in Taft should continue to be assigned to the Edison School. A proposal to build apartments on a site on Wallingford Road could also increase the number of pupils that would be enrolled in Edison.

The section north of the Boston & Albany railroad tracks in Brighton has and will continue to have excess school building capacity. The Barrett School was not used in 1962. Since it will not be needed in the future, and because it is located adjacent to an industrial section, the Barrett School should be sold. The Gardner School should be used to house grades K-5 and the Storrow School grades K-3. All K-5 pupils in this area could be housed in the Gardner School in 1965, but it is recommended that the Storrow School be kept through 1970 until the exact nature of possible land use changes in this area can be determined.

The section south of Commonwealth Avenue is currently served by the Baldwin School. This school should be sufficient to serve the southern section for an indefinite period of time.

The central section of Brighton will need additional construction by 1965. The Garfield School is currently operating at capacity, and considerable growth of school-age population is predicted for this section. It is recommended, therefore, that an eight-room addition be constructed at the Garfield School which would be ready by 1965.

The Washington Allston School is obsolete, badly deteriorating, and is in an adverse location. Immediate abandonment is not possible, since no school in the surrounding area has sufficient capacity to accommodate the pupils now attending Washington Allston. A new 350-pupil school should be constructed in 1965 in this general vicinity to replace the Washington Allston building.

The remaining schools in the central area can continue to serve their present function through 1965.

RECOMMENDATIONS FOR 1970

By 1970 approximately 1,250 junior high pupils are expected to attend school in Brighton. The Edison and Taft buildings could house these pupils, but the 1895 section of the Taft School is considered unfit for public school purposes beyond 1970. By 1970, the 1895 wing of the Taft School should be abandoned and the newer section converted to junior high use. The gymnasium and auditorium should be retained. An addition shou d be constructed on the Taft building which would provide the special facilities and classrooms necessary to make the Taft a modern 600-pupil junior high school. Approximately 400 pupils could be housed in the 1939 section during construction, while the surplus enrollment could be assigned to the Edison School.

A new 350-pupil elementary school will be needed in 1970 in the central section to replace the loss of elementary classrooms in the Taft School. This school should be constructed on a suitable site in the general area of the Taft School. A location close enough for pupils in the Fidelis Way Housing Project to attend is most desirable.

The Oak Square School is a small, frame structure that should be programmed for abandonment. Because its four classrooms are located on the first floor, and steel fire escapes are provided from every classroom, it can be continued in use for a limited time. A 200-pupil school should be constructed in the Oak Square area prior to 1975, so that the Oak Square School can be abandoned.

The buildings not specifically mentioned in the narrative should be retained through the period 1962-1975. The majority of the Brighton Schools were constructed or added to in the period between 1920-1935.

These buildings have received considerable use since that time. Although they are older buildings, they are structurally sound and can be continued in use with appropriate maintenance and modernization.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Year	Capacity	Enrollment
Elementary		
1960	3,740	3,330 (K-6)
1965	3,805	3,400 (K-5)
1970	3,745	3,505 (K-5)
(by) 1975	3,815	
Intermediate**		
1960	1,550	1,115 (7-9)
1965	1,550	900 (6-8)
1970	1,450	1,250 (6-8)
(by) 1975	1,650	

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Total Capacity	Comments
1965	1	K-5	240	addition
	1	K-5	350	
1970	1	6-8	200	addition and special facilities
	1	K-5	350	
(by) 1975	1	K-3	200	

SUMMARIES OF SCHOOLS TO BE ABANDONED

Oak Square: K-3

Built in 1894; one story; 1923 addition of 2 classrooms; Type VI; wood frame exterior
4 classrooms, 2 @ 675 sq. ft.; 2 @ 820 sq. ft.

Capacity: 120

This building rises over Oak Square as an attractive anachronism from a bygone era in schoolhouse construction. Its site is small and surrounded by busy, noisy streets.

Interior lighting is poor and the floors are badly worn. The outmoded toilets are located in the basement. Coalboilers located there are hand-fired. The building contains only four classrooms, indicating a probable high operating cost.

Although it is of wooden construction, the classrooms are all located on the first floor, and steel fire escapes are provided for every classroom, thus its use can be continued for a limited time. However, the combination of its deficiencies - especially its limited capacity and its wooden construction - argue for abandonment of the Oak Square School as soon as practicable.

William H. Taft: 1-6, 7-9

Built in 1895, addition in 1913; 3 1/2 stories; Type IV; brick exterior
16 classrooms @ 670 sq. ft.; 11 classrooms @ 1,170 sq. ft.; 4 classrooms @ 1,065 sq. ft.; 1 art room @ 670 sq. ft.; 1 science room @ 670 sq. ft.

1 gym @ 3,850 sq. ft.; 1 sheet metal room @ 1,630 sq. ft.; 1 printing room @ 1,140 sq. ft.; 2 home economics rooms @ 1,275 sq. ft.; 1 administrative office; 1 health room; 1 teachers' room

Capacity: 950

The Taft School is located at the apex of two busy streets, Cambridge and Warren, and is situated between the Kennedy Foundation to the rear and the Brighton High School. In 1939 an 18-room addition to the original structure cut down the size of the playground area considerably.

Although large classrooms and adequate natural light are positive attributes of the 1895 section, the older building is most notable for its many shortcomings. Its all-wood interior, including wooden support beams, does not meet fire-resistance standards. Leakage is evident in many areas; in areas where plaster is loose and falling, there is considerable dry rot and decay, and no paint has been applied in years. The window frames are loose and rotting, and the floors badly worn and split.

A predominant characteristic is the lack of acceptable sanitary facilities. All toilets are in the basement and are difficult to keep clean because of the porous materials used in their construction. Throughout the building there is a pervasive unpleasant smell.

Extensive renovation of this building would be unwise in view of the fact that its all-wood structure could never meet standards of contemporary fire-resistive design, and the abandonment of the Taft School is recommended.

Washington Allston: K-6

Built in 1879; 3 stories; Type IV; red brick exterior
2 classrooms @ 960 sq. ft.; 4 classrooms @ 860 sq. ft.; 4 classrooms @ 840 sq. ft.; 1 shop @ 1,200 sq. ft.; 1 City Health Clinic; 1 administrative office; 1 teachers' room

Capacity: 310

Bars, warehouses, gas stations, and small business establishments impinge upon the Washington Allston School from all directions. Located near an intersection of two heavily-traveled streets, Cambridge and Harvard, it is subject to a constant rumble of trucks, busses, and cars. Its small site provides very limited playground area.

This building is showing the wear and tear expected from its nearly hundred years of service. The slate roof has extensive leaks and repair is reportedly extremely difficult. The exterior walls are also cracked. These conditions are evident on the interior by water stains on the walls.

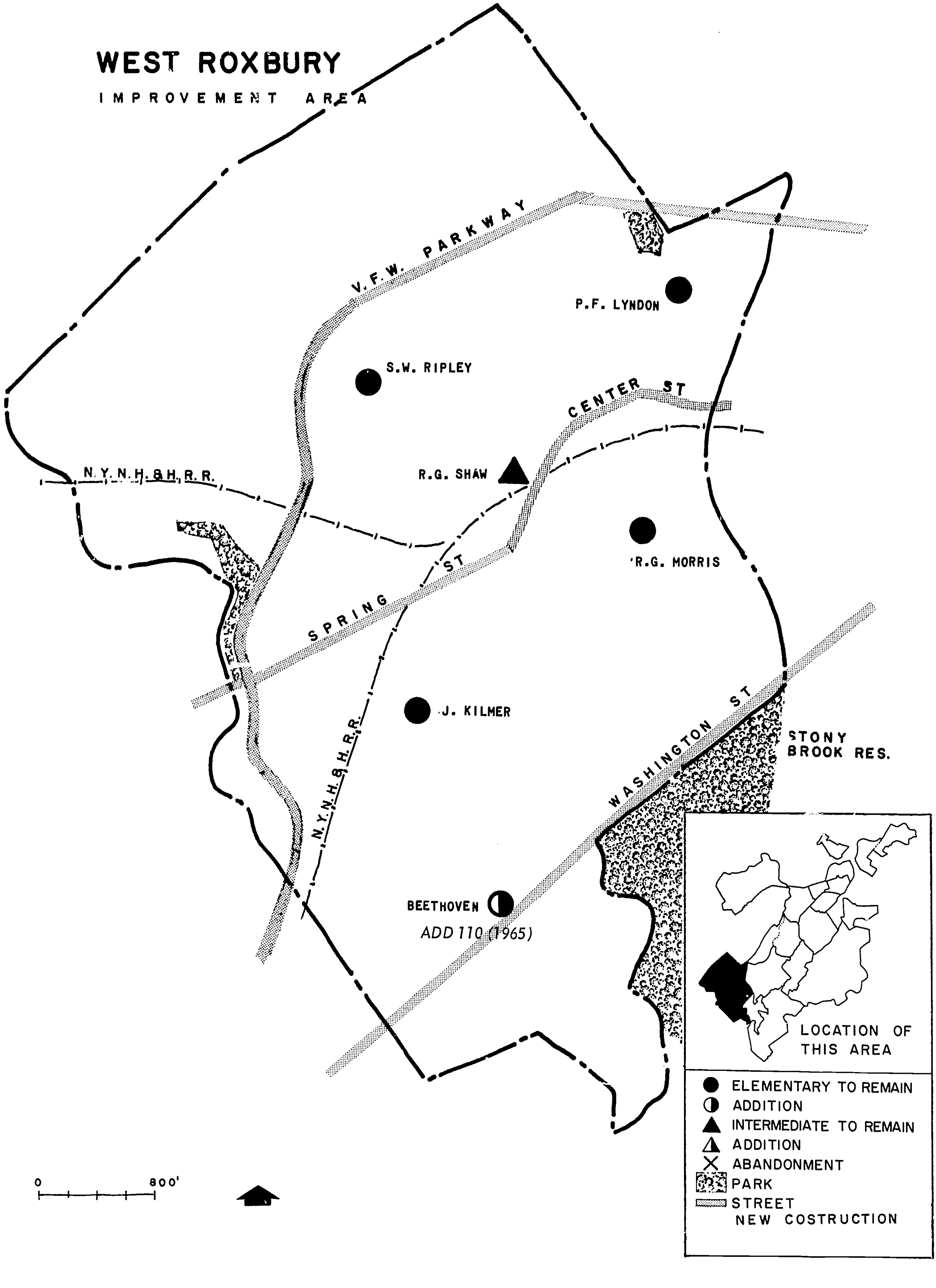
Doors are loose; windows need caulking. There is no provision for artificial ventilation, and air circulation is controlled only through windows. The heating system is obsolete and manually controlled. Toilet fixtures are out-moded and the wooden partitions, porous floors, and inadequate ventilation in the toilet rooms make proper sanitation virtually impossible.

The poor location, small site, non-fire-resistive wood frame construction, and deteriorating condition of the Washington Allston make abandonment of this building necessary in the near future.

TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	Classrooms K.G.	Classrooms Other	Recommendations
W. Allston	K-6	310	1879 1900	IV	3	9	1	2	Abandon 1968
H.A. Baldwin	K-6	380	1926 1930	I	2½	13	1	1	Retain as K-5
Commonwealth Ave.	K	80	1951	I	Basement	0	1	0	Continue facility
T. Gardner	K-6	610	1906 1924	I	3½	19	2	2	Retain as K-5
J.A. Garfield	K-4,6	225	1925	I	2½	6	2	0	Retain as K-5; add 240 in 1965
A. Hamilton	K-6	400	1924,1926 1930	I	2½	14	1	2	Retain as K-5
A. Jackson	K-6	275	1924	I	2½	11	1	0	Retain as K-5
M. Lyon	K-6	180	1914	IV	1½	6	1	1	Retain as K-5
Oak Square	K-3	120	1894 1923	VI	1½	3	1	0	Abandon by 1975
J.J. Storrow	K-3	75	1926	I	1½	3	1	0	Retain as K-3
Winship	K-6	540	1901 1924	IV	3½	17	1	2	Retain as K-5
T.A. Edison	5-6 7-9	1,060	1932	I	2½	35	0	12	Retain as 6-8
W.H. Taft	1-9	950	1895,1913 1939	IV I	3½	31	0	8	Abandon 1895 portion 1970; add special facility to 1939 portion for 600 pupil 6-8


WEST ROXBURY
IMPROVEMENT AREA
V.F.W. PARKWAY
P.F. LYNDON
S.W. RIPLEY
CENTER ST
R.G. SHAW
N.Y.N.H.&H.R.R.
R.G. MORRIS
SPRING ST
J. KILMER
N.Y.N.H.&H.R.R.
WASHINGTON ST
STONY BROOK RES.
BEETHOVEN
ADD 110 (1965)
LOCATION OF THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW COSTRUCTION
0
800'

WEST ROXBURY

Occupying the extreme southwestern corner of the city, and cut off from it by the West Roxbury Parkway and Stony Brook Reservation, this section of fine residences is more like the neighboring suburbs of Newton, Dedham, and Brookline than like the older sections of Boston. A few small areas along the two branches of the New Haven Railroad and the Charles River are industrial. In an area with a history of growth and development, the amount of open land remaining ensures a continuing potential for such growth; however, current projections suggest that this will be slow.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	1,765	1,740	1,955
6-8**	675	705	650

* figures rounded off to nearest five

** pupils in grades 7 and 8 who may be expected to enroll in Latin Schools have been excluded

The one junior high school and five elementary buildings are in relatively good condition and are among the younger ones in the city. Except for the southern section served by Kilmer and Beethoven, there is no overcrowding and all buildings are comfortably near capacity. To accommodate the expected growth in enrollments in the lower grades, the recommended reorganization to a K-5, 6-8 system will free sufficient space in the elementary schools with one exception. This is in the same Beethoven-Kilmer area which is even now crowded and where the potential for growth is greatest.

Therefore, it is recommended that a free-standing addition for 110 pupils be constructed at Beethoven. Current overcrowding may be relieved in 1962 by immediate reorganization of these two schools as K-5's, but the addition will be necessary by 1965.

At the intermediate level, Robert G. Shaw, a large building with several additions, can easily house all anticipated enrollments. Currently, use is made of a portion of its capacity for elementary pupils, including one special class. Continuance of this is recommended as a means of fully utilizing this building with the additional suggestion that, if possible, these classes be physically separated from those of the intermediate school by location in a separate wing. The presence of this elementary section facilitates early enrollment of the sixth grade from Beethoven and Kilmer.

In the years 1967 and 1968 it will be possible to phase in the removal of the ninth grade from R. G. Shaw to Roslindale High School and city-wide schools. As this is done, the remaining sixth grade from Lyndon, Morris, and Ripley may be admitted to Shaw and the reorganization completed.

Since the open land near Beethoven has the highest growth potential of this area, it may become necessary to increase the size of the addition here before the completion of this program. As a free-standing structure, however, the recommended addition is easily adapted both to such expansion and to the eventual replacement of Beethoven after 1975.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Comments
1965	1	K-5	110	Free-standing addition

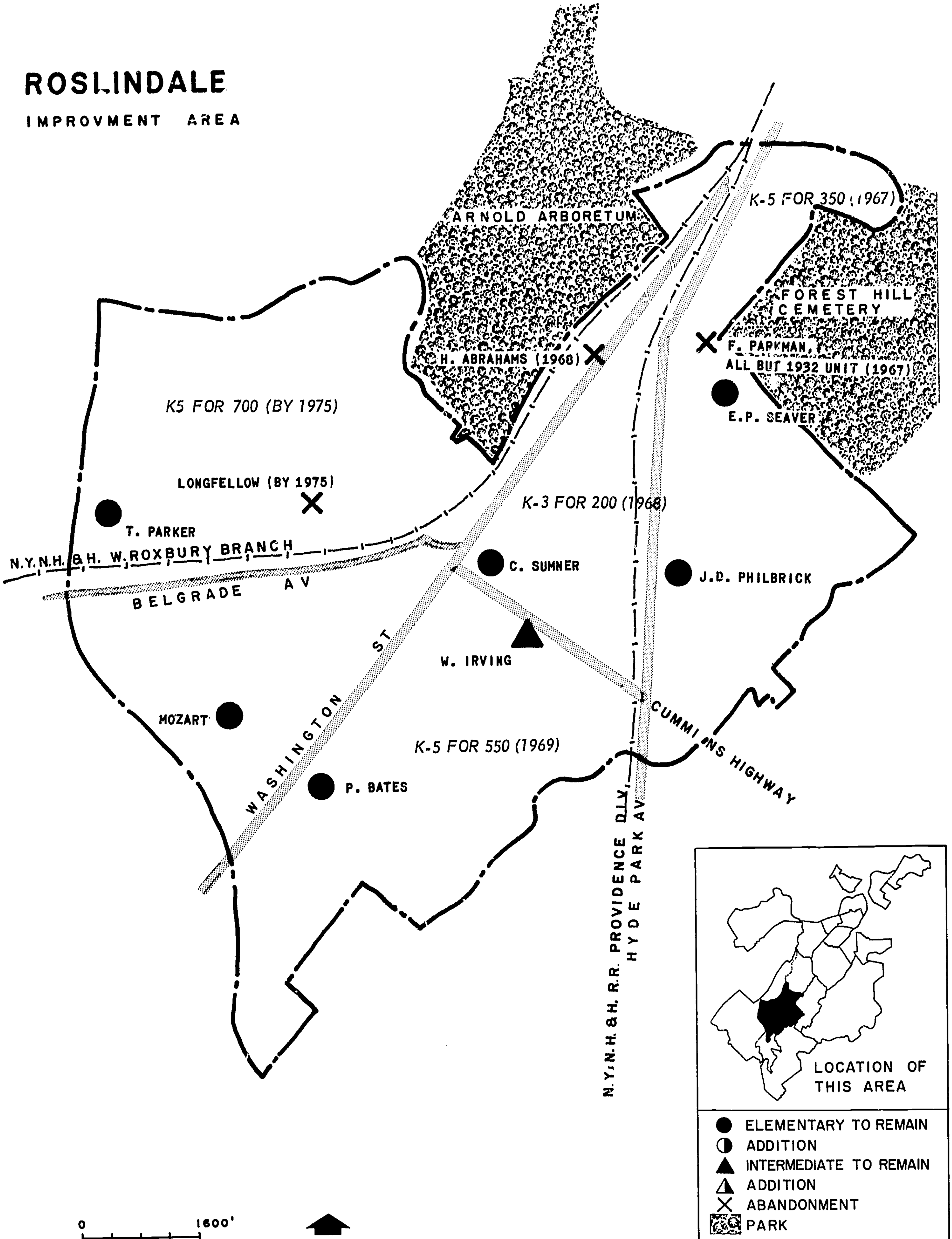
TABLE III

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	Classrooms K.G.	Classrooms Other	Recommendations
Beethoven	K-6	250	1925 1931	IV	2½	7	1	0	Retain as K-5; in 1965 add 1 kg., 2 classrooms and multi-purpose room
J. Kilmer	K-6	325	1935 1938	I	2½	11	1	1	Retain as K-5
P.F. Lyndon	K-6	400	1928	I	2½	11	2	1	Retain as K-5
R.G. Morris	K-6	355	1927 1933 1934	I	2½	12	1	1	Retain as K-5
S.W. Ripley	K-6	325	1932	I	2½	11	1	2	Retain as K-5
R.G. Shaw	K-9	880	1919,1927 1933,1936 1939	I	2½	25	0	14	Retain as K-5,6-8

ROSLINDALE

IMPROVMENT AREA



ROSLINDALE

South of the Arborway, Arboretum, and VFW Parkway lies the heavily populated and pleasantly hilly section of Roslindale. To the west is the West Roxbury Parkway and to the east the cemetery section; only to the southeast does this region merge imperceptibly into another, Hyde Park, along the line of Canterbury and Poplar Streets.

Within this residential community two branches of the New York, New Haven, & Hartford Railroad strike north towards Forest Hills to set up barriers for easy movement. Between these branches as they close in on Washington Street and the border of the Arboretum is the only extensive commercial and industrial activity in Roslindale.

Currently several schools in Roslindale are overcrowded to some extent. Predictions are for continued slow growth in enrollments through 1965 and an acceleration of this trend between 1965 and 1970. Implementation of the recommended reorganization of elementary schools as K-5's in 1963 will alleviate this crowding until late in the decade when new construction will be necessary to accommodate the growth.

To achieve this reorganization early will require Washington Irving Junior High School to serve all pupils in grades 6 through 9 for a few years. As such, it will be efficiently and fully utilized and can house all pupils expected in these grades until approximately 1967. In 1967 and 1968, transfer of the ninth grade into Roslindale High School and city-wide facilities will complete the reorganization and make room in Washington Irving for the increase of intermediate enrollments.

As the first step, by 1963, the second floor of the Sumner School should be completed and opened up, for an additional 175 capacity of the school. This will allow the elementary classes to vacate Irving as the sixth grade is enrolled.

New construction is recommended at the elementary level first to allow abandonment of substandard buildings. In the north of Roslindale, in the commercial and industrial pocket between the railroads near Forest Hills mentioned above, is one small K-3 school, Henry Abrahams, serving a relatively stable population, preponderantly from the Archdale Road Housing Project. It is anticipated that this project will furnish a constant enrollment, but continued use of the temporary basement classrooms cannot be accepted, nor is an addition advisable to a building with such environmental and structural limitations. There is virtually no way out of the pocket east or west. Therefore, it is recommended that a new K-3 school for 200 be constructed east of Washington Street and south of the Housing Project by 1968 to allow abandonment of Abrahams.

Across the tracks in a similar pocket formed this time with the help of the cemetaries, F. Parkman and Seaver, and Philbrick to the south, can accommodate K-5 enrollments as all grades 6-8 attend Irving. Replacement of the older sections of Parkman by a school for 350 and two special classrooms in 1967, and located farther north, is necessary, however, because of the deficiencies of that structure and its site. Therefore, a school for 350 pupils and 2 special classes should be built by 1967, somewhat farther north of the present Parkman. The newest section of Parkman should remain as a primary unit.

Along the southern edges of the region, now served by P. Bates and Mozart, where the most recent growth and heaviest overcrowding has occurred, a new school for 550 and two special classes should be built by 1969. This, along with new construction in Hyde Park, should serve the growing school population according to present predictions. However, close watch should be maintained, especially with the new developments proposed at the end of the American Legion Highway and south of Beech Street and an increase in size of this unit or further construction after 1970 should be considered, if necessary.

North of the West Roxbury railroad line between the Arboretum and the Parkways lie Longfellow and T. Parker. These two buildings will serve through 1970. Because of growth and its inherent deficiencies, however, Longfellow should be replaced before 1975 with a 700-pupil school more centrally located. It may be difficult to obtain a site of the necessary size; in which case, two schools for 350 pupils situated in the northwestern and southeastern parts of this region would be acceptable alternatives.

TABLE I

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Total Capacity
1967	1	K-5	350
1968	1	K-3	200
1969	1	K-5	550
1970-75	1	K-5	700

SUMMARIES OF SCHOOLS TO BE ABANDONED

Henry Abrahams: K-3

Built in 1929; 1 1/2 stories; Type I; red brick exterior
2 classrooms @ 670 sq. ft.; 1 @ 650 sq. ft.; 1 @ 620 sq. ft.;
1 kindergarten @ 870 sq. ft.

Capacity: 140

The Abrahams School is in an area wedged between railroad lines that form barriers to the west and east. The school building is adjacent to small factories, while neighboring streets, especially Washington, have heavy traffic. Mahler Street, on which the school faces, is dead-end at the railroad enbankment, but it is filled with cars and truck traffic on weekdays.

Glass and debris litter the school yard. The brick exterior of the building shows signs of crumbling in places, wooden trim needs painting, and windows and sash need paint and repair. The asphalt of the school yard has been undermined by water, an underground condition in the area which has caused deterioration and damage to the foundation of the building. Several attempts have been made to correct the condition, but apparently without success.

The four original classrooms are acceptably furnished and equipped, but are too small for all of the activities generally carried on at the primary level. The indoor play area originally located in the basement has been absorbed by the construction of two "temporary" classrooms some years ago. Play activities in the remaining basement area cannot be carried on while classes are meeting in the temporary rooms. Dampness permeates the whole basement area. Heating in these temporary classrooms is accomplished by circulation pipes; natural light in one of the rooms produces excessive glare; there are no mechanical means for ventilating the rooms, and opening windows risks admission of exhaust fumes, factory dust, and noise.

Poor location, crowded conditions, and structural deficiencies suggest that this school be replaced by a more attractive and efficient building. Abrahams may have resale value as a commercial structure.

Longfellow: K-6

Built in 1897, addition in 1909; 3 1/2 stories; Type IV; red brick exterior
10 classrooms @ 900 sq. ft., 3 @ 670 sq. ft., 3 and 1 kindergarten @ 640 sq. ft.; 1 kindergarten @ 650 sq. ft., 1 remedial reading room and 1 sewing room @ 730 sq. ft. on third floor, and 1 basement shop @ 900 sq. ft.

Capacity: 450

The Longfellow School is a red brick building, massive in appearance and located on a limited site at the busy intersection of South and Walter Streets. A public playfield nearly opposite the school is separated from it by heavily travelled South Street.

While the exterior masonry appears sound, water stains on the interior walls indicate a problem of leakage. Windows are in poor condition, loose and rattling and in need of recaulking between frames and masonry.

The interior is of obsolescent design and ill adapted to modern programs. The kindergarten rooms are much too small for such use. As the addition was built one-half story lower than the main building, there are many stairs between sections. The location of the auditorium on the third floor of the main building is not easily accessible and adds to the safety deficiencies inherent in the wood frame construction. The special facilities in the third floor attic of the addition have only a single staircase for access.

Toilet facilities are inconveniently located in the basement and ground floor and are equipped with antique slate urinals, similarly outmoded water closets, wooden stall partitions, and porous paving, all generally in poor repair.

Three coal boilers fired by hand are used to heat this structure.

Its wood-frame construction coupled with its awkward design primarily as well as its structural and repair deficiencies indicate that Longfellow should be abandoned within ten years.

Francis Parkman: K-8

Built in 1899, with additions in 1904, 1908, and 1932
4 classrooms, ranging from 800 to 870 sq. ft.; 12 classrooms, ranging from 650 to 690 sq. ft.; 1 kindergarten @ 870 sq. ft.; 1 shop @ 640 sq. ft.; 1 homemaking room @ 640 sq. ft. and 1 @ 980 sq. ft.

Capacity: 460

The Francis Parkman is a maze of levels, stair wells, alcoves, and corridors that occupies a sloping, poorly utilized site in a residential section of Roslindale. The structure surmounts a rough and rocky playyard surrounded by an iron pike fence. The exterior brick is chipping in places, wood trim needs paint, window frames require caulking, and there is evidence of water seepage through the foundation. Water stains on interior walls indicate a need for repointing and waterproofing of exterior walls.

The main building exhibits deterioration of walls and ceilings. There are excessive brightness contrasts in the classrooms throughout the older structure. The malodorous toilets are difficult to clean and in a very poor condition with slate urinals, old, broken equipment and porous cement floors. The auditorium is poorly designed and located below the floor levels of the other sections.

The 1932 addition is small but substantial and in good condition. This structure can be separated from the older Parkman and redesigned for use as a primary school, but it should not be expanded because of the topography and limited size of the site.

The older parts of the Parkman should be abandoned within five years.

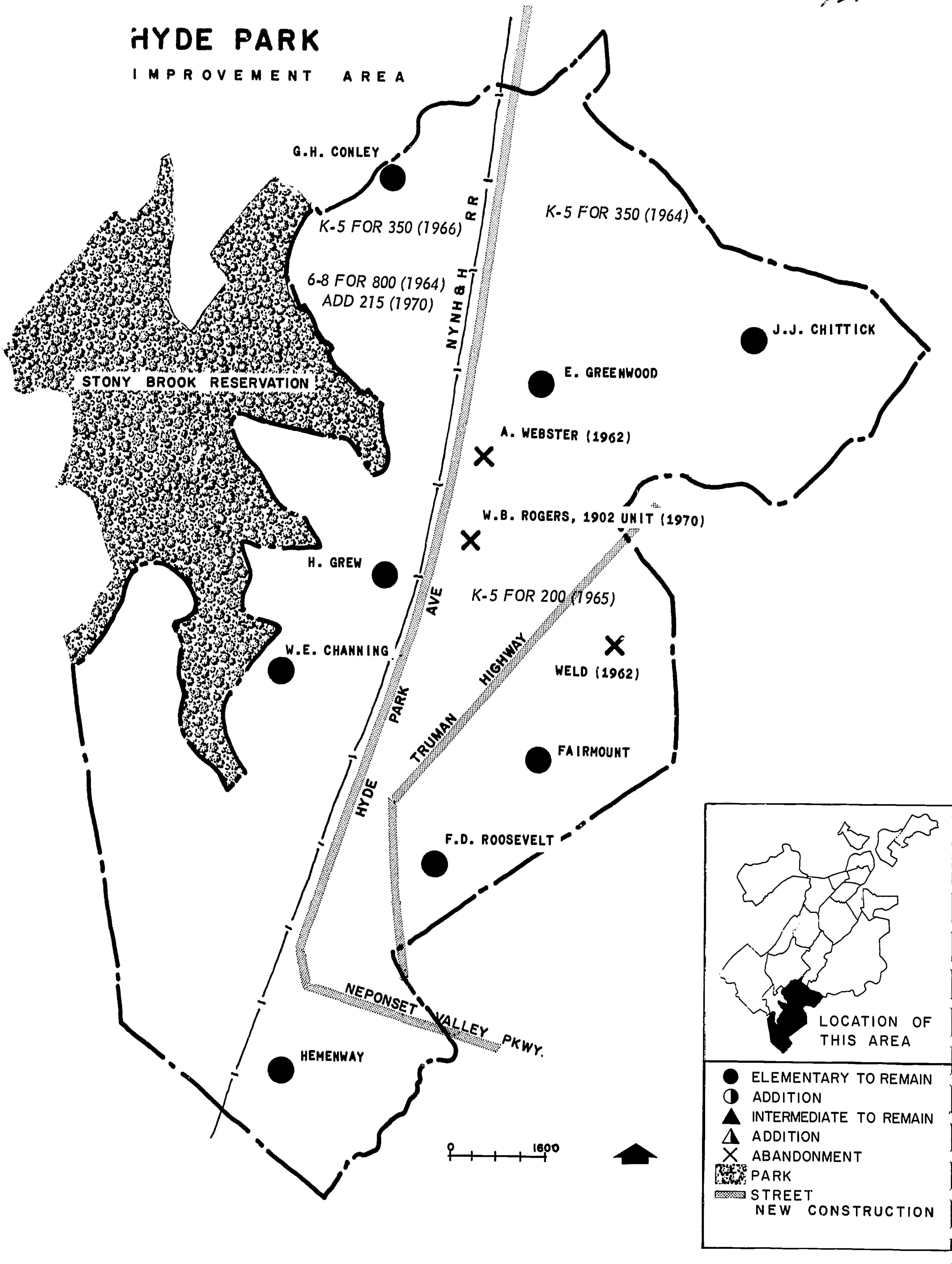
TABLE II

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
H. Abrahams	K-3	140	1929	I	1½	4	1	0	Abandon 1968
P. Bates	K-6	355	1929	I	2½	12	1	0	Retain as K-5
Longfellow	K-6	450	1897 1909	IV	3½	16	2	3	Abandon by 1975
Mozart	K-6	225	1932	I	2½	7	1	0	Retain as K-5
T. Parker	K-3	125	1924	IV	1½	3	1	0	Retain as K-3
F. Parkman	K-8	460	1899,1904 1908,1932	IV	2½	16	1	3	Abandon old portions 1967; retain 1932 addition
J.D. Philbrick	K-6	215	1913	IV	2½	7	1	0	Retain as K-5
E.D. Seaver	K-5	260	1924 1932	IV	1½	7	1	0	Retain as K-5
C. Sumner	K-6	475	1931 1937	I	2½	15	1	4	Retain as K-5; complete 2nd floor in 1963
W. Irving	K-4,7-9	1,175	1936	I	2½	35	2	15	Retain as 6-8

HYDE PARK

IMPROVEMENT AREA



HYDE PARK

The last annexation to the City of Boston, Hyde Park has a steadily growing population and considerably more open public and private land than most other sections of the city. It is located in the extreme south, bordering Milton and Dedham, and contains Fairmount, the only part of Boston which is situated on the south bank of the Neponset River. The Fairmount section is thus isolated from the rest of Hyde Park, not only by the river, but by the Midland Branch of the railroad and the Truman Highway. Similarly, the long-important southern residential and industrial community of Readville is defined by the Neponset River, the Mill Pond, and the Mother Brook and effectively separated both from neighboring Fairmount and from the main residential portions of Hyde Park.

Since even the "mainland" of Hyde Park between the waterways and Cummins Highway is split east and west by the Providence Branch of the Railroad, running parallel to Hyde Park Avenue down from Roslindale to Readville and with only three crossings all that length, it is obvious that schools in this area serve well-defined regions. An extreme example, the Hemenway School of Readville, cannot despite its unused capacity relieve overcrowding in adjacent Fairmount.

TABLE I

ESTIMATED PUBLIC SCHOOL ENROLLMENTS*

Grade	1960	1965	1970
K-5	3,060	3,510	3,970
K-6	3,500	3,990	4,540
6-8	1,350	1,470	1,760
7-9	1,380	1,500	1,790
6-9	- - -	1,980	- - -

* figures rounded off to nearest ten; inclusive of all pupils living in area

The growing population and consequent increase of school enrollments will involve new construction at all levels and in practically all of these regions except Readville, where it is expected that Hemenway will suffice. As a first step to create more space in elementary schools it is recommended that they be reorganized as K-5's in 1964.

The early construction by 1964 of an intermediate school for 800 pupils in the growing area close to Roslindale in the north will allow for the inclusion of grade 6 in the intermediate system by that date and also permit the retention of grade 9 until 1966 and 1967. In those years the expansion of city-wide high school facilities and the inclusion of cooperative programs in the new vocational school should permit the phased-in implementation of the four-year high school in Hyde Park, and thus the completion of the grade reorganization to K-5, 6-8, 9-12. In 1970 the original section of W. B. Rogers should be abandoned. At that time the addition of space for 215 pupils and one special class at the northern intermediate will provide sufficient total capacity for all grade 6-8 pupils expected to attend school in Hyde Park.

The old Town of Hyde Park bequeathed to Boston several old wooden school buildings. Practically all of these have now vanished in the wake of recent new construction brought on also by the growth of the area, and in total buildings Hyde Park now boasts the most modern school plant in Boston. There are, however, still two relics of the past, Weld and Amos Webster.

The tiny Weld is situated in Fairmount, where the two other schools, Fairmount and F. D. Roosevelt, are now over capacity. Immediate closing of this school is recommended, with temporary consolidation of its few pupils in Fairmount. This will, it is recognized, involve even more crowding there, even with reorganization, especially as enrollments grow. It will also result in some pupils having to travel three-quarters of a mile and more. Therefore, in 1965, Weld should be replaced in its immediate vicinity by a school for 200 pupils which can later be expanded as this section continues to demonstrate elementary school enrollment growth. Fairmount and Roosevelt may then operate without crowding.

As a temporary expedient to permit immediate closing of A. Webster, pupils now in this school may be housed in W. B. Rogers for two years. Current excess space in this school will permit this, while E. Greenwood, the nearest elementary school, is already overcrowded and becoming more so. By 1964, however, enrollment increases at the intermediate level and the recommended reorganization will require this space for intermediate use again.

Necessary new construction in "mainland" Hyde Park must be separated into two parts, just as the railroad and Hyde Park Avenue sever this section. An elementary school for 350 pupils and one special class in the east in 1964, where in addition to overcrowded E. Greenwood, Chittick is serving now an enrollment far in excess of its capacity will, with the reorganization, relieve the crowding and allow removal of the Webster elementary from Rogers. This school is of a size and location well-adapted to future additions as the neighborhood continues to develop.

To the west of the railroad a similar school for 350 pupils should be built by 1966 to supplement Grew and Channing. Present growth patterns indicate its location should be in the north, near Conley and the proposed American Legion Highway development. Addition of two classrooms to Grew originally planned will also increase its capacity to 350 pupils.

If, however, open land between Turtle Pond Parkway and Dedham develops more rapidly than this northwest area before 1966, this school may be better located in the south. Indeed the potentials of the sections along the border of the Stony Brook Reservation are such that the school may even need to be of 550-pupil capacity. Again, the recommended 350-pupil school is well-suited for expansion when necessary.

TABLE II

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Capacity	Comments
1964	1	6-9	800	- - -
1964	1	K-5	350	- - -
1965	1	K-5	200	- - -
1966	1	K-5	350	- - -
1970	1	6-8	215	addition

SUMMARIES OF SCHOOLS TO BE ABANDONED

William Barton Rogers: 7-9

Built in 1902, additions in 1920 and 1934; main building, Type IV; additions, Type I
35 classrooms @ 750 sq. ft.; 1 audio-visual room, 2 art rooms, 1 mechanical drawing room, 2 science rooms @ 610 to 930 sq. ft.; 1 gymasium @ 4,000 sq. ft.; 4 shops @ 950 to 1,100 sq. ft.; 4 home economics rooms @ 700 to 810 sq. ft.

Capacity: 1,090

The Rogers Junior High School is a structure composed of three units, two of which are serviceable facilities and one of which should be scheduled for abandonment and demolition. The latter was originally Hyde Park High School, was converted to junior high use, and then added to in subsequent years. It would appear possible to disengage this structure from the later wings.

Wood frame construction predominates in the old building. Window sash and frames are loose and rotting in places. Outside doors and fire doors are working loose on butts and are difficult to open or close. There is evidence of water leakage throughout the building, in walls, ceilings, and in basement spaces. Wood lath and plaster in the old structure are also in poor condition. For safety reasons the School Department has wisely discontinued use of parts of the upper stories by students.

Some attention should be given to renovation of the newer wings of the Rogers. Classrooms require painting, floors need repair and refinishing, and some waterproofing and repairing of exterior and interior walls are required to make the newer structure a more modern up-to-date school building. However, the older part of the building does not warrant renovation and accompanying maintenance costs and should be abandoned as soon as new capacity is provided elsewhere.

Amos Webster: K-3

Built in 1895; 2 1/2 stories; Type VI
3 classrooms and 1 kindergarten @ 900 sq. ft.

Capacity: 140

This old wooden building of obsolete design is located on a small site and has only four classrooms and no special facilities. Presently two grades are housed in one classroom. The basement sanitary plumbing is deficient according to modern standards. The toilets have slate-trough urinals and chain-pull hanging water tanks. Porous floors and ineffective ventilation are conducive to retention of odors and make sanitation difficult. The wood floors in classrooms and corridors are worn and the building is extremely hard to heat.

Since the entire building is of wood construction, it cannot meet contemporary standards of fire-resistant design, and in addition the fire escape is attached to the building, which makes its use potentially hazardous. Both educational and safety considerations suggest that this building should be abandoned as soon as possible.

Weld: K-2

Built in 1895; 1 1/2 stories; Type VI
1 classroom @ 900 sq. ft.; 1 kindergarten @ 900 sq. ft.

Capacity: 80

The Weld School is a small, old frame building that could be mistaken for a residence. It is becoming dilapidated. The interior walls are cracked and show evidence of leaking. The window frames and sash are deteriorating. The basement is dark and dismal and leakage is apparent on its walls. The basement toilet facilities are obsolete and difficult to maintain at a minimum level of sanitation. The all-wood construction cannot be termed fire-resistant.

It would not be economically sound to renovate a frame structure that would offer only the services of two classrooms. Currently, one of these classrooms houses grades 1 and 2 together, each with its own teacher. Economics alone would dictate abandonment of a school only three-quarters full, even without the additional impetus of its unsafe construction and poor structural condition.

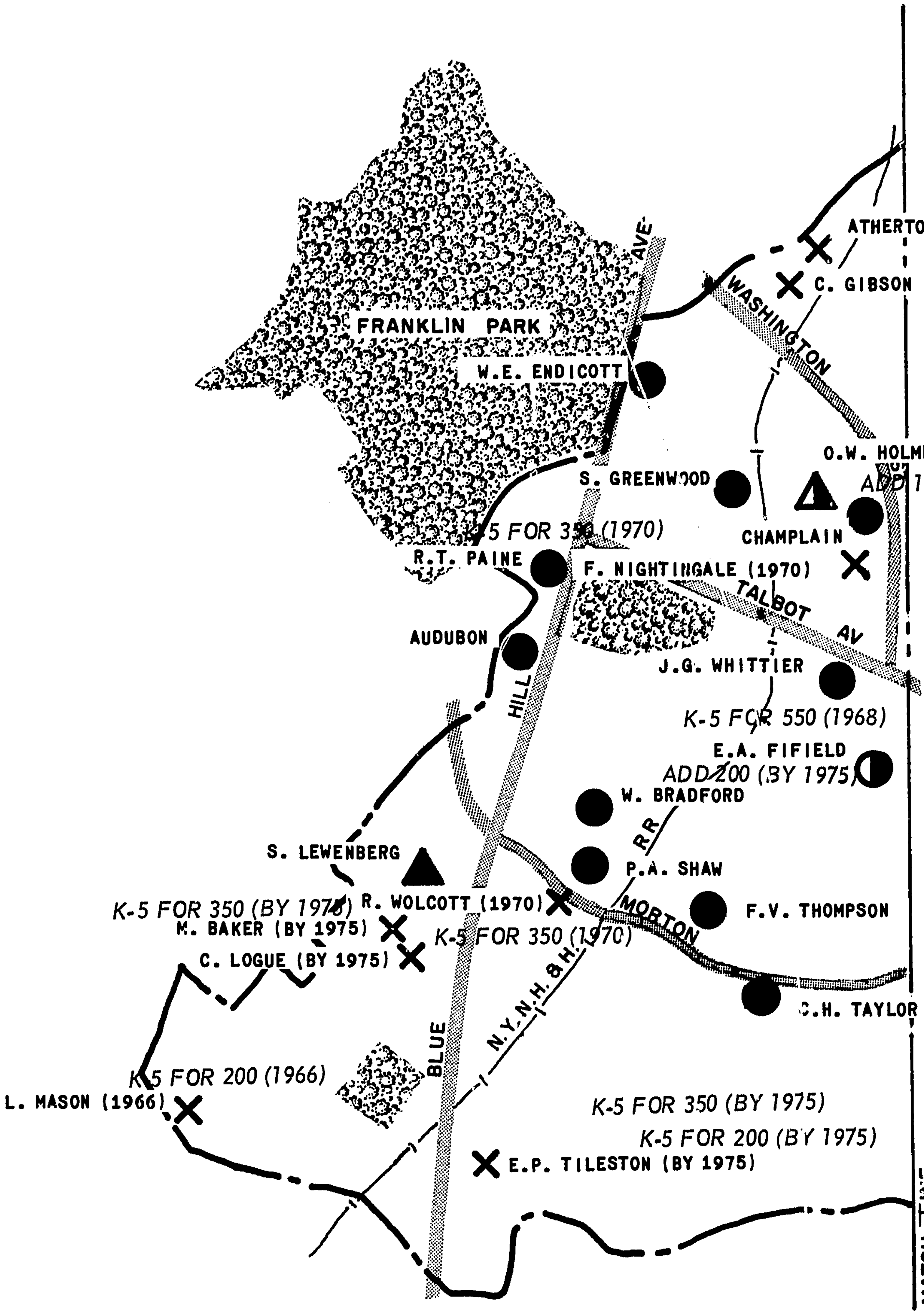
TABLE III

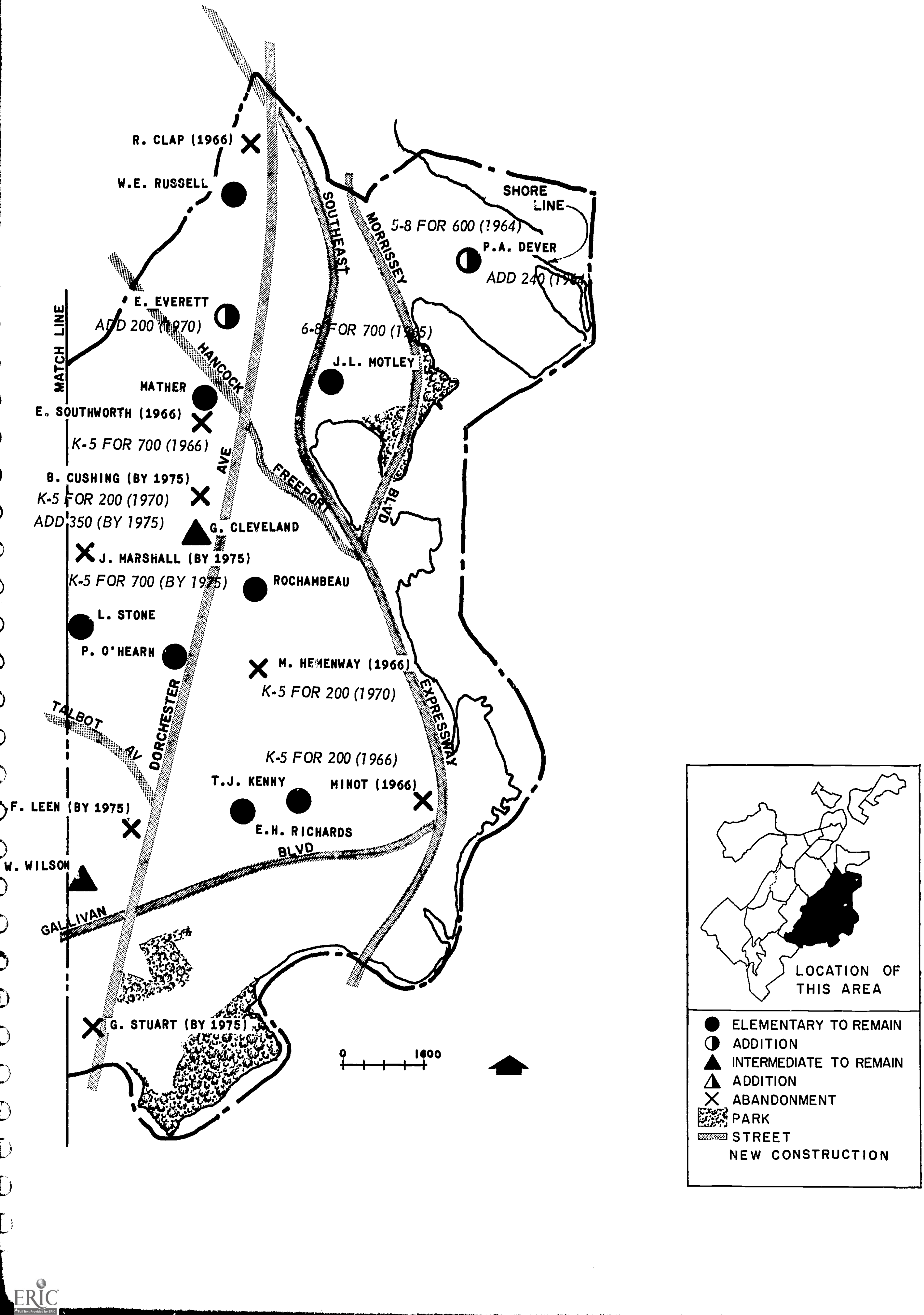
RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms Reg.	Classrooms K.G.	Classrooms Other	Recommendations
W.E. Channing	K-6	440	1928 1931	I	2½	14	1	2	Retain as K-5
J.J. Chittick	K-6	490	1931 1957	I	2½	17	1	2	Retain as K-5
G.H. Conley	K-6	350	1932	I	2½	12	1	1	Retain as K-5
Fairmount	K-6	410	1953	I	2½	12	1	2	Retain as K-5
E. Greenwood	K-6	460	1957	I	2	12	2	3	Retain as K-5
H. Grew	K-6	290	1958	I	2	8	1	1	Retain as K-5; add 2 classrooms
Hemenway	K-6	230	1952	I	1	6	1	0	Retain as K-5
F.D. Roosevelt	K-6	410	1957	I	3½	12	1	1	Retain as K-5
A. Webster	K-3	140	1895	VI	2½	3	1	0	Abandon 1962
Weld	K-2	80	1895	VI	1½	1	1	0	Abandon 1962
W.B. Rogers	7-9	1,090	1902 1920 1934	IV	3½	33	0	16	Abandon & raze 1902 portion 1969; retain rest as 6-8

DORCHESTER

IMPROVEMENT AREA





R. CLAP (1966)
W.E. RUSSELL
SHORE LINE
5-8 FOR 600 (1964)
P.A. DEVER
ADD 240
SOUTHEAST
MORRISSEY
E. EVERETT
ADD 200 (1970)
6-8 FOR 700
MATCH LINE
HANCOCK
J.L. MOTLEY
MATHER
E. SOUTHWORTH (1966)
K-5 FOR 700 (1966)
AVE
FREEPORT
BLVD
B. CUSHING (BY 1975)
K-5 FOR 200 (1970)
ADD 350 (BY 1975)
G. CLEVELAND
J. MARSHALL (BY 1975)
K-5 FOR 700 (BY 1975)
ROCHAMBEAU
L. STONE
P. O'HEARN
M. HEMENWAY (1966)
K-5 FOR 200 (1970)
EXPRESSWAY
TALBOT AV
DORCHESTER
K-5 FOR 200 (1966)
T.J. KENNY
MINOT (1966)
F. LEEN (BY 1975)
E.H. RICHARDS
BLVD
W. WILSON
GALLIVAN
G. STUART (BY 1975)
0
1600
LOCATION OF THIS AREA
ELEMENTARY TO REMAIN
ADDITION
INTERMEDIATE TO REMAIN
ADDITION
ABANDONMENT
PARK
STREET
NEW CONSTRUCTION

DORCHESTER

The Dorchester Improvement Area represents the largest geographical area and population concentration of Boston. In area it comprises 16 per cent of the city and holds 23 per cent of the total population. Bounded on the northwest by Columbia Road, the east by Boston Harbor, the south by the Neponset River and the west by Franklin Park and the Boston State Hospital complex, Dorchester consists of a number of identifiable centers, each with a character and image of its own. Fields Corner, Savin Hill, Codman Square, Neponset, and Ashmont are suggestions of the "neighborhoods."

Dorchester Avenue is the main north-south artery, with the Midland Division of the New Haven Railroad acting as a kind of barrier to the movement of pedestrians; traffic on Blue Hill Avenue Dorchester Avenue, Morton Street, and Talbot Avenue makes these streets potential lines of demarkation for elementary schools, although as is true elsewhere, the complex road network makes it practically impossible to isolate school districts from all major traffic hazards. The alternative is to provide safe access wherever such hazards exist.

There are a number of large parochial schools in Dorchester, with the result that areas from which reasonably large public schools must draw their pupils tend to be excessively large, particularly in the less densely populated areas toward the south. When this factor is combined with the street network pattern, it seems inevitable that several smaller-than-average elementary schools are required, unless the responsibility for bus transportation of children is adopted on a city-wide basis. Indeed, some loss in operating efficiency of the small schools can perhaps be justified on the basis of both distance and neighborhood.

For the section as a whole, the schools are better than in many of the more central parts of the city. The O'Hearn and the Dever are two of the city's newest schools, but even so, one-fifth of the elementary schools in the area were built before 1900.

The southern part of the area has been organized on a 6-3-3 basis, while in the north the Russell serves as a kindergarten and 5-8 school. In addition, pupils from the Columbia Point housing project attend South Boston for grades 5-8. As soon as new intermediate schools are built, the entire area should be organized on the five year elementary, three year intermediate and four year high school basis (K-5, 6-8, 9-12).

The construction of two intermediate schools in the northern sector is key then to the reorganization of this area. One of these schools for 600 pupils in grades 5-8 should be built in the Columbia Point Housing Project area and should be opened in 1964 in order to relieve the existing transfer of pupils in grades 5-8 out of the area. The second school for 700 pupils in grades 6-8 should be located in the vicinity of Savin Hill Avenue and Aukland Street and should be made available by 1966.

By 1970 the area served by the Holmes will overtax the capacity of this school and an additon for 150 pupils will be required. The

Holmes is an older junior high school which should be replaced sometime after 1975. The additional classrooms, therefore, should be in the form of a free-standing addition which can subsequently either be moved or made a part of the new structure. The availability of land in this area is limited, but as much site as possible should be acquired with this future development in mind. The Cleveland, Lewenberg and Wilson will then accommodate the intermediate grade pupils for the rest of the area.

At the elementary level the most immediate recommendation is for construction in 1964 of an addition to Dever to accomodate 240 pupils and two special classrooms. This addition will serve the Columbia Point Housing Project and will relieve the overcrowding there. For the elementary school area to the north of Cushing Avenue, a free-standing addition to the Everett for 200 pupils will be required by 1970.

Directly to the south of Everett, the Southworth School on the Mather School site should be abandoned as should the Atherton and Gibson to the west between Columbia Road and the railroad. These three schools should be replaced in 1966 by a school for 700 pupils and two special classes located in the vicinity of Olney and Bowdoin Streets. By 1970 further growth in this area will require the construction of a basic 200-pupil unit adjacent to Ronan Park. With this school should be combined a 350-pupil addition by 1975, at which time the Cushing School on the south of Ronan Park can be abandoned.

In the area bounded by Dorchester Avenue, the railroad and Talbot Avenue, the Marshall should be abandoned by 1975 to be replaced with a 700-pupil unit, the greater capacity to accommodate the modest growth anticipated. The Nightingale, now housing special students, should be abandoned by 1970. Its pupils could be housed in a separate wing of the F. V. Thompson. (see below)

Across Talbot Avenue to the south towards Morton Street, the Whittier, Fifield, Leen and Thompson can accommodate the K-5 enrollments expected in the area east of the railroad. However, the Leen should be abandoned by 1975 and replaced by a 200-pupil free-standing addition to the Fifield adjacent to the Roberts playground. In 1970 it is recommended that the second floor of the Taylor School be completed, thus making a separable wing of Thompson with its former junior high facilities available to house the special students from Nightingale.

To the west of the railroad, from Washington Street south to Morton Street, the schools may all be retained, but growth estimates require two new schools, one for 550 pupils and two special classes in 1968 and one for 350 pupils and one speciel class in 1970. The first should be located south of Franklin Field adjacent to the housing project, while the second should be east of Blue Hill Avenue in the vicinity of Talbot and Wales streets.

In the area on the east side of Dorchester Avenue the Hemenway and Minot should be abandoned in 1966 to be replaced by a 200-pupil school. This replacement for the area east of Neponset Avenue is an example of a small school required by its relative isolation from other areas.

By 1970 the Hemenway should be replaced near the playground by another 200-pupil K-5 unit to accommodate the growth in the over-all area and a review made of the enrollment at that time to determine whether the rate of growth might call for a larger school.

To the west of Dorchester Avenue and south of Morton and Gallivan Boulevard, the Stuart and Tileston should be abandoned by 1975 to be replaced by a 200-pupil K-5 unit near Stuart but further west and a 350-pupil K-5 school between West Seldon and Gladeside.

West of the railroad the Wolcott School should be abandoned in 1970 and replaced by a 350-pupil K-5 school adjacent to the Walker playground. The Baker and Logue (between Blue Hill and Walk Hill Avenues) should be abandoned by 1975 and a combined replacement built for 350 pupils somewhat to the north of the existing schools.

The L. Mason School just north of Cummins Highway should be abandoned in 1966 and replaced by a 200-pupil K-5 unit to the north near Almont playground. There are indications of increased housing in this area, so that the replacement for the Mason School should be located and the site chosen with this in mind. Future growth might require a total school capacity of 550 pupils.

In all, by 1975, 15 elementary and one special school should be abandoned.

TABLE I

SUMMARY OF NEW CONSTRUCTION

Year	Number of Schools	Grades Housed	Total Capacity	Comments
1964	1	5-8	600	
	1	K-4	240	addition
1966	1	6-8	700	
	3	K-5	1,100	
1968	1	K-5	550	
1970	1	6-8	150	addition
	1	K-5	200	addition
	4	K-5	1,100	
(by) 1975	2	K-5	550	additions
	4	K-5	1,600	

SUMMARIES OF SCHOOLS TO BE ABANDONED

Atherton: K-3

Built in 1872; 2 1/2 stories; Type IV
6 classrooms @ 780 sq. ft.; 2 kindergartens @ 780 sq. ft.

Capacity: 260

This building, located on heavily-traveled Columbia Road, is approaching its hundredth birthday. The effect of age and decay may be seen in the following defects: steel supports have been installed to reinforce the sagging wooden stairways. Classrooms are very small; interior walls have cracks and wooden classroom and corridor floors are worn. The heating system is coal-fired and its control is manual. Ventilating facilities are restricted to windows and gravity flow exhaust ducts.

The basement toilets are substandard. Not only are facilities awkwardly arranged, but their obsolescence causes sanitary standards to be compromised. Necessary renovation is so extensive that it would seem uneconomical in view of the building's age and non-fire resistant features. It is recommended that the Atherton School be abandoned soon.

Martha Baker: 1-2

Built in 1913; 1 1/2 stories; Type IV; stucco on wire lath exterior
4 rooms @ 630 sq. ft.

Capacity: 100

Other than for the intimate atmosphere it provides primary grade children, the Martha Baker has almost nothing to justify its continuance as a public school. The small stucco building shares a site with the Charles Logue School. The stucco is cracked in places and the interior walls leak, probably due to the condition of the exterior wall.

The building has no special educational facilities. Wood is the chief framing and finishing material on floors, walls, and windows. Floors are old, badly worn, and shrunken in the four small rooms. Plaster is loosened from many walls. Doors open into the main corridor which is used for storage, due to the scarcity of closet space in the building. The interior is dark and colorless due to design and insufficient artificial light.

Heating and ventilation can be controlled only by use of windows and radiator valves. Basement toilets are dark, poorly equipped, and difficult to clean. One-half of the toilet equipment was inoperative at the time the building was viewed by the study staff. Classrooms have no sinks, library, or work areas. Noise carries easily from one part of the building to another.

These deficiencies plus the fact that no space is available for expansion of classrooms or the addition of special facilities, and that, other than for the area between the basement toilets, no interior play space is available support the advice that the Martha Baker should be abandoned as soon as possible.

Roger Clap: K-6

Built in 1896; 3 1/2 stories; Type IV; red brick exterior
9 classrooms and 2 kindergartens @ 900 sq. ft.; 1 classroom @ 1,120 sq. ft.; 1 sewing room in basement

Capacity: 400

Roger Clap is now an outmoded and deteriorated plant. The roof has had to be extensively repaired recently as the conditions of the interior plaster ceilings and walls show. The third floor especially is badly cracked and stained. The mortar is crumbling away from between the exterior brickwork over wide areas. Window sash are loose and rattle in their frames.

Classrooms are ill-lit with substandard artificial lighting, the ill effects of which are compounded by the dark varnish, old paint, and black slate chalkboards between the windows of the classrooms. A sewing class in a substandard basement room with especially poor natural light has had new fluorescent lamps installed.

The two hand-fed coal boilers are old. There is no longer any artificial ventilation since the indirect plenum chamber heating system was dismantled and replaced by radiators in the 30's. No hot water is available for pupils anywhere in the building, while the only wash basins are not located in the basement toilet rooms, but upstairs in the corridors. Slate trough urinals and overhead wooden tanks servicing the waterclosets, varnished wood partitions and seats, and cracked asphalt floors combine with a generally malodorous atmosphere to complete the picture.

The linoleum covering steel stairtreads is worn and slippery, and smoke doors at the foot of the stairwells are of wood. The sum of these conditions prescribe that the building be abandoned at the earliest opportunity.

Benjamin Cushing: K-3

Built in 1897; 2 1/2 stories; Type IV; brick exterior
6 classrooms @ 930 sq. ft.; 2 kindergartens @ 940 sq. ft.; 1 all-purpose room in basement

Capacity: 280

Although the structure of this 65-year old building is sound, the cost of making it a modern schoolhouse would be prohibitively high when compared with the cost of building a new school of the same size. Furthermore, the building suffers from certain disabilities that renovation will not cure: a wood frame interior and a size and architecture out-of-scale for children.

Cushing reveals its age in other respects. Window frames and sash are rotting, ceiling leaks are developing, the boilers are hand-fired, lighting is poor by modern schoolroom standards, ventilation is entirely controlled by opening and closing windows, and the dark toilets are located in the basement.

The two iron fire escapes are attached to the building and boiler rooms are below standards for fire resistance.

These conditions all argue for the abandonment of the Cushing School by 1975.

Christopher Gibson: X-6

Built in 1893; 2 1/2 stories; Type IV; red brick exterior
9 classrooms @680 sq. ft., 8 classrooms @ 700 sq. ft., 1 kindergarten @ 780 sq. ft., 1 basement shop and 2 basement home economics rooms @ 700 sq. ft.

Capacity: 505

The Gibson is a large building that dominates a small site in a neighborhood of one and two family residences. Its outdoor play space is too small for the number of children enrolled. The school is wedged in by the railroad that abuts it on one side and the main thoroughfare of Columbia Road. Travel to it must be controlled across both of these boundaries. Inside stairs are of wood and in reasonably good condition, but the floors of classrooms and corridors are badly worn, and are cracked and split in places. The structural deficiencies of the building are indicated by the limitations placed on the wide first floor corridor and the second floor auditorium for all-school activities.

Plaster ceilings and walls show cracks and water stains and in several cases, plaster has loosened from the lath. Dark wood and substandard artificial lighting make the building poor for study purposes. Window sills and frames have rotted out and result in drafts in the classroom areas.

The safety of the building is limited by several factors other than its wooden structure: much of the panic hardware on the outside doors is difficult to operate; there are long steep stairs from the second floor; and the overcrowded classrooms may contain as many as 40 children.

The poorly ventilated and equipped basement toilets are not easily accessible for small children, while porous concrete floors make cleaning of these areas difficult. Coal must be transported some distance to the hand-fired boilers and control of heat and ventilation is chiefly manual.

The over-crowded school is in an area where new schools must be constructed to accomodate growth.

Christopher Gibson should be given a high priority for abandonment as soon as new construction can accommodate its pupils.

Mary Hemenway: K-6

Built in 1897; 3 1/2 stories; Type IV; red brick exterior
10 classrooms @ 850 sq. ft., 2 kindergartens @ 850 sq. ft., 1 auditorium for 325 persons.

Capacity: 380

Typical of the school of its period, the Mary Hemenway has deteriorating brick exterior, steep wooden stairways, wide corridors, and high ceilings. Lighting is below the level of modern standards. The hand-fired coal burners increase the difficulty of maintaining a light, clean interior.

The building suffers from many leaks and is, therefore, damp inside. The leaking means that the interior needs plastering and painting, and the exterior needs repointing. Some of the water enters through the window frames which are badly in need of paint and repair. The toilets, located in the basement, are dark, obsolete, and hard to clean because of porous floors.

The amount of money required to make the Hemenway a satisfactory building is too great to warrant the improvements. In addition, the building would always have certain disabilities including: lack of site, unattractiveness, and disproportionate scale. The wooden interior and third floor auditorium are undesirable in terms of fire resistance and safety. These conditions prescribe abandonment of the Hemenway.

T. F. Leen: K-3

Built in 1923; 1 1/2 stories; Type IV; brick exterior
3 classrooms and 1 kindergarten @ 720 sq. ft.

Capacity: 130

A fairly attractive building in a quiet neighborhood, the Leen is currently operating at far less than capacity. While the exterior walls are sound, the roof is not in good condition. Large numbers of slates are cracked and the extensive plaster patching of ceilings indicates a history of leakage. Painting of exterior trim, especially of windows, has been long deferred. Interior painting is also badly needed; none was done when new plaster was applied.

Substandard illumination and dark wood-work make lighting unsatisfactory. There is no artificial ventilation. Despite a few new fixtures, sanitary facilities are still equipped with obsolete waterclosets and the asphalt floors are extremely difficult to keep clean. Because there is no interior connection with the basement and no other storage area, the custodian is forced to use the boys' toilet room for storing his materials. Classroom storage is equally limited. Drinking fountains are in combination with antiquated slate sinks.

It would be difficult to justify expensive renovations required for a structure of such small capacity which is not of fire resistant construction.

Charles Logue: K, 3-6

Built in 1924; 3 1/2 stories; Type IV; red brick exterior
6 classrooms @ 710 sq. ft., 2 classrooms @ 780 sq. ft., 1 kindergarten @ 1,200 sq. ft.; 1 remedial reading room; 1 speech and music instruction room; 1 sewing room in former girls' playroom at ground level

Capacity: 230

The first and second grade pupils from this school are housed in Martha Baker with which it shares a site. The ground floor, a few feet below the level of the playgrounds, contains the kindergarten and the sewing room; the boiler room is in a sub-basement below the kindergarten. The exterior walls have several long vertical cracks and the roof leaks. As a result, interior walls and ceilings are cracked throughout the building and show water damage. Window frames are broken, need caulking and sills are rotting away from lack of paint.

Classroom lighting is far below modern standards with only five fixtures with 100 Watt bulbs per room and the dark woodwork and long years without painting add to the extremely poor illumination.

The coal-fired, hand-fed heating system is manually-controlled and there can be no hot water until the boilers are fired up for winter. No provision for artificial ventilation is available. While plumbing fixtures are relatively modern, the toilet rooms themselves are on the ground floor and have asphalt paving in poor condition.

Although staircases are of steel, the remainder of the interior is wood frame construction. This structure cannot be economically brought up to acceptable educational and safety standards: the Logue should be replaced by 1975 at least.

John Marshall: K-6

Built in 1903; 3 subsequent additions; 2 1/2 stories; main building, Type I; red brick exterior
12 rooms @ 790 sq. ft.; 4 rooms @ 680 sq. ft.; 1 kindergarten @ 1,310 sq. ft.; with 2 anterooms @ 400 sq. ft.; 1 shop @ 890 sq. ft.; 1 home economics room @ 680 sq. ft.

Capacity: 510

The building has had two classroom wings and a boiler room added to it over the years. The result is a maze of corridors and levels that isolate some parts of the building from others. There are few special facilities for the large enrollment, other than the woodworking shop, a sewing room, and an unattractive auditorium.

Structurally, the building appears sound. A number of renovations have improved service systems: boilers are oil-fired and plumbing has been renovated. Ventilation in the main building is poor, however, and cement floors in the basement toilet areas make control of odors and cleanliness difficult.

Recently painted walls and ceilings of classrooms show evidence of leakage and cracking, indicating a need for repointing and waterproofing of exterior walls. There is apparently a considerable amount of moisture in the walls and the foundation shows signs of leaks and seapage. Windows require repair and painting of frames and sills.

The age of the building, its lack of indoor and outdoor recreation and play space, the poor arrangements and relationship of its instructional and service areas, and the cost of putting the building into first-class condition are arguments that by 1975, the Marshall should be abandoned.

<u>Lowell</u> <u>Mason</u>: <u>K-3</u>

Built in 1922; 1 1/2 stories; Type VI
3 classrooms @ 710 sq. ft.; 1 kindergarten @ 710 sq. ft.; 1 teachers' room

Capacity: 130

Mason is a wooden structure with but four small classrooms. On the playground to the rear are outcroppings of rock. Directly to the north of the building are several acres of vacant land covered with scrub growth.

Its exterior wooden walls are cracking and in need of paint. This condition has aggravated interior leakage. Children in the school have limited educational facilities. There is no indoor play area, no health room, little storage space for equipment, and little library space. Regular classrooms are small, and the kindergarten room is even smaller and less suitable for its purpose. Air circulation is hard to control, for windows provide the only means of ventilation. Because of porous floors and wood partitions, the toilet rooms are difficult to maintain at proper sanitary standards.

Because of the structure's all-wood (Type VI) construction, small capacity, deteriorated condition, and lack of facilities, Mason's children should be transferred to another school in the near future and the building abandoned.

Minot: K-6

Built in 1887; 3 1/2 stories; Type IV; red brick exterior
6 classrooms @ 750 sq. ft.; 1 kindergarten @ 750 sq. ft.

Capacity: 200

The Minot is a tall building which faces the intersection of two heavily traveled thoroughfares: Neponset Avenue and Minot Street. Morrissey Boulevard and the Southwest Expressway are to the rear of the building, isolating the school by traffic from many of the pupils it serves. The small site of less than an acre cannot properly sustain the recreation or physical education program of an elementary school.

Exterior cracks have resulted in water stains on interior walls and ceilings. Although services were renovated with the installation of boilers and oil heat in 1949, the only unit control of the system is in a third floor classroom. The absence of effective ventilation results in poor air circulation throughout the school. Basement toilets are outmoded and poorly equipped. The auditorium is small and poorly located for use.

Some improvements have been made in the building recently, but not enough to warrant its use for any considerable length of time. The vertical design, in which seven classrooms are located on three floors, makes any extensive modernization of the building prohibitively expensive. In view of its deficiencies, it is recommended that the Minot be abandoned.

F. Nightingale: special school

Built in 1913; 2 1/2 stories; Type IV; brick exterior
9 classrooms @ 600 sq. ft.; 1 @ 860 sq. ft.

Capacity: (for elementary use) 215

This small building is used for education of retarded children of working age. The small-sized classrooms are thus not as great a defect as they would be in an elementary school. Exterior walls are chipping and need extensive painting. Window sashes are loose and rattle. New paint is necessary on sash frames and all exterior trim.

Interior walls and ceilings show many cracks and are similarly in need of new paint. Flooring of classrooms, corridors, and stairs is wooden and the stair treads are badly worn. Lighting is far below modern standards. Control of the hand-fed coal-burning heating system is quite difficult, especially with the Johnson system inoperative.

Basement toilet rooms have old wooden partitions, porous floors, and obsolete fixtures. Drinking fountains upstairs are combined with wash basins. The non-fire-resistant construction of this school and its several defects force a recommendation to abandon it and house these pupils in a building more adapted to their needs.

Southworth: K-3

Built in 1872; 3 1/2 stories; Type IV; red brick exterior
9 classrooms @ 840 sq. ft.; 3 kindergarten rooms @ 840 sq. ft.;
1 teachers' room

Capacity: 390

Southworth shares the same site as the larger, more modern Mather School. Next door is a firehouse, but other than this, the location is suitable, for it is at the dead-end of the street and has a beautiful view of the Neponset estuary and harbor islands.

The structure itself, which was built during Grant's first term as President, is much less suitable for school purposes. The wood frame construction, wooden stairs, and cracked, dry wood walls are far from fire-resistant; water has damaged the lath and plaster in several areas. Many windows cannot be repaired with painting and caulking alone, since the sash are rotted and loose.

Basement toilets are dark, and the porous material of which their floors were constructed makes them difficult to keep clean and sanitary. Southworth has no audio-visual or adequate health room and its storage space is limited.

Not only is Southworth an obsolete educational facility, but its presence takes away valuable playground area from the newer and larger Mather School. This building should be razed as soon as possible and its present student body should attend a more up-to-date school. The land can best serve as a playground for the school and the community.

Gilbert Stuart: K-6

Built in 1896; 3 1/2 stories; Type IV; red brick exterior
6 classrooms @ 900 sq. ft.; 1 kindergarten @ 900 sq. ft.; 1 administrative office; 1 sewing room @ 900 sq. ft.

Capacity: 250 (without the use of 3rd floor)

This building is located in an area of heavy traffic and is virtually surrounded by a supermarket and retail business establishments. Several rooms are not in use because of its limited enrollment, possibly as a result of the location of a new, modern parochial school less than a block away.

Although it has a wood frame interior, improvements have been made in the building. Boilers are fired with automatic oil heat; there are storm windows throughout and stairways are of steel.

However, the building's negative features are many. They include a cramped site surrounded by busy streets, a third floor auditorium with large, dry wood beams and difficult egress, window sash in need of caulking and paint; and a ventilating system restricted to windows and gravity floor exhaust ducts only. Present electrical fixtures do not meet contemporary lighting standards and the dark varnished surface of the woodwork and desks contributes to an ill-lit interior. The basement toilets, furthermore, contain outmoded fixtures and the porous floor materials make cleaning the room difficult.

This school might serve the community until 1975 at best, but the third floor should be closed off immediately. Its capacity has been computed without use of this floor and with installation of the sewing room on one of the lower floors.

Edmund P. Tileston: K-6

Built in 1911; 2 1/2 stories; Type IV; red brick exterior
16 classrooms and 1 kindergarten @ 730 sq. ft.; 1 woodshop, 1 sewing room, 1 remedial reading room, 1 kitchen and multi-purpose room, and 1 kindergarten - all located in the basement. 1 auditorium on first floor

Capacity: 490

Located in a neighborhood which has seen much recent development of housing, both private and public, as well as new commercial construction, this building is rapidly declining. The outside walls are in fair condition with some repointing having been done but the doors, window frames, and sash need paint and preservation badly. Many sills and side frames have become dried out, split, and rotten. The roof is not watertight with the result that walls and ceilings are cracked and stained. The chimney stack is in poor condition with many cracks, mortar missing, and bricks out of line.

Floors of the classrooms and corridors are of wood, while the stairs, also of wood except at the front entrance are excessively worn, cracked, and split. Corridors are long, narrow and ill-lit, and classrooms are little better, especially where the trees shade out the natural light. The indirect heating system is based on boilers, coal-fired by hand.

Toilet fixtures consist of slate troughs partitioned by slate slabs 18" apart and overhead tank waterclosets. Classroom furnishings similarly need modernization. There is only 24 square feet of tackboard in the basement kindergarten and some rooms have none at all. The present location of the sewing room and kindergarten in the basement is not a satisfactory situation. While bearing walls and partitions are of masonry, beams, joists and staircases, as well as floors, are of wood. Although the Tileston School can be retained a few more years before it is replaced by a modern structure, its pupils could well benefit from a brightening of its paint and modernization of its furnishings.

Roger Wolcott: 4-6

Built in 1901; 3 1/2 stories; Type IV; red brick exterior
11 classrooms @ 800 sq. ft.; 1 home economics room @ 800 sq. ft.; 1 audio-visual room @ 800 sq. ft.; 2 unused classrooms @ 720 sq. ft. on 3rd floor; 1 basement shop; 1 multi-purpose room; 1 3rd floor auditorium

Capacity: 390

The Roger Wolcott occupies a small site at the junction of two heavily-traveled traffic arteries, Morton and Norfolk Streets, in Dorchester.

Age and deferred maintenance have taken their toll of the building: exterior walls badly need repointing; trim and windows require paint and caulking between frames and masonry; roof timbers have required reinforcement and bracing over the years; interior walls are cracked to some extent and show evidence of leaks; floors are worn in corridors, classrooms, and stairs. Water seepage and leaks have caused deterioration and damage to the building; plaster walls are water-stained in places, seepage and dampness are an acute problem in the boiler room and basement areas; corridor floors show excessive swelling and buckling in places; and exterior doors to fire escapes are difficult to open during and after damp weather.

There are a few commendable features in the building: classrooms are large and reasonably well-lit and the building has had improvements for fire safety in the recent past. Many of the plumbing fixtures are modern.

On the other hand, the boilers are old and manually coal-fired. The use of the top floor classrooms and auditorium has been discontinued for safety reasons, except for sewing classes and occasional small groups. The modernized sanitary rooms are in the dark basement which still has porous asphalt floors.

The Wolcott may serve its present purposes for a limited time but should be phased out of Boston's school plant in the near future.

TABLE II

RECOMMENDATIONS FOR EXISTING BUILDINGS

School	Grades	Capacity	Year	Type	Stories	Classrooms			Recommendations
						Reg.	K.G.	Other	
Atherton	K-3	260	1872	IV	2½	6	2	0	Abandon 1966
Audubon	K-6	250	1919	I	2½	8	1	1	Retain as K-5
M.A. Baker	1-2	100	1913	IV	1½	4	0	0	Abandon by 1975
W. Bradford	K-3	380	1912 1930	IV	2½	10	3	0	Retain as K-5
Champlain	K-3	300	1925	IV	2½	12	0	1	Retain as K-5; convert 2 rooms to 1 kg.
R. Clap	K-3	400	1896	IV	3½	10	2	1	Abandon 1966
B. Cushing	K-3	280	1897	IV	2½	6	2	0	Abandon by 1975
P.A. Dever	K-4	910	1957	I	2	27	2	3	Retain as K-4; add 240 & 2 special classes 1964
W.E. Endicott	K-6	310	1906	I	2½	9	1	1	Retain as K-5
E. Everett	3-6	350	1909	I	2½	14	0	2	Retain as K-5; add 200 including kg. in 1970
E.A. Fifield	K-6	400	1918	I	2½	17	0	3	Retain as K-5; convert 4 rooms to 2 kg.
C. Gibson	K-6	505	1895	IV	2½	17	1	3	Abandon 1966
S. Greenwood	K-6	630	1919	I	2½	22	2	3	Retain as K-5
M. Hemenway	K-6	380	1897	IV	3½	10	2	0	Abandon 1966
T.J. Kenny	K-6	530	1926 1930	I	2½	15	2	3	Retain as K-5
T.F. Leen	K-3	130	1923	IV	1½	3	1	0	Abandon by 1975
C. Logue	K,3-6	265	1924 1926	IV	3½	8	1	3	Abandon by 1975
J. Marshall	K-6	510	1903 1913	I*	2½	16	1	2	Abandon by 1975
L. Mason	K-3	130	1922	VI	1½	3	1	0	Abandon 1966
C. Mather	K-6	820	1905	I	3½	24	1	5	Retain as K-5
Minot	K-6	200	1887	IV	3½	6	1	0	Abandon 1966

J. Motley	K-6	275	1911 1923	IV	2½	11	1	1	Retain as K-5
P. O'Hearn	K-6	340	1957	I	1	8	2	2	Retain as K-5
R.T. Paine	K-6	430	1925	IV	2½	13	1	3	Retain as K-5
E.H. Richards	K-6	190	1913	IV	1½	6	2	1	Retain as K-5
Rochambeau	K-6	400	1918	I	2½	14	1	3	Retain as K-5
W.E. Russell	K,5-8	520	1907	I*	3½	16	1	2	Retain as K-5
P.A. Shaw	K-6	475	1919 1920	I	2½	17	1	0	Retain as K-5
E. Southworth	K-3	390	1872	IV	3½	9	3	0	Abandon 1966
L. Stone	K-6	310	1937	I	2½	9	1	3	Retain as K-5
G. Stuart	K-6	250	1896	IV	3½	12	1	1	Abandon by 1975; keep top floor closed
C.H. Taylor	K-6	450	1931	I	2½	12	2	1	Retain as K-5; complete 2nd floor 1970
F.V. Thompson	K-6	890	1922 1925	I	2½	27	2	3	Retain as K-5 with wing as special school 1970
E.P. Tileston	K-6	490	1911 1914	IV	2½	15	2	3	Abandon by 1975
J.G. Whittier	K-4	310	1905	I	2½	9	1	0	Retain as K-5
R. Wolcott	4-6	330	1901	IV	3½	11	0	3	Abandon 1970; keep top floor closed
F. Nightingale	Spec.	-	1914	IV	2½	2	0	8	Abandon 1970
G. Cleveland	7-9	730	1925 1928	I	2½	21	0	12	Retain as 6-8
O.W. Holmes	7-9	575	1905	I	3½	18	0	7	Retain as 6-8; add 150 & 3 special classes in 1970
S. Lewenberg	7-9	1,000	1930 1957	I	2½	34	0	14	Retain as 6-8
W. Wilson	7-9	1,075	1932	I	3½	35	0	14	Retain as 6-8

*wood roof

APPENDICES

APPENDIX A

POPULATION AND ENROLLMENT PREDICTION METHODOLOGY

Introduction

Boston maintained a fairly constant number of inhabitants between 1940 and 1950. In 1940, according to the United States Census, Boston had a population of 770,816; by 1950 this number had increased approximately 4% to 801,444. The 1960 United States Census, however, showed a drop to 697,197. In other words, Boston by 1960 had undergone a 13% net loss of its 1950 population. An application to the total population trend between 1960 and 1970 of the basic curve employed in the individual census tract projections as described below indicates an estimated Boston population of 650,000 in 1970.

As we shall see, this prediction for the city is of little value in estimating enrollment; it is only the school age group which is of direct interest and the trends for this age group differ from the trends of the total population. In addition, for projections to be useful, they must take into account variations in trends within sub-areas so that planning can be tailored to the particular needs of each section of the city. The basic unit chosen for the sub-area analysis was the census tract. Fortunately, the boundaries of the 1960 census tracts have not changed significantly from those in 1950, so valid comparisons could easily be made. Population projections were made for each of the 156 census tracts in the city and these results reflect the variations in trends throughout the city.

It must be understood, of course, that since population prediction is in no way an exact science, reasonable assumptions must form the underlying structure. The methodology will attempt to make these assumptions explicit.

Because school enrollments are influenced by many variables, a more accurate forecast results when each variable is analyzed individually. Basing a projection on several variables (the method employed in this report) instead of on a summary coefficient, makes it possible to isolate and adjust for each variable; such a procedure has proven to be most accurate in estimating enrollments.[1]

The methodology paid careful attention to births, survival rates, public housing, net migration, Negro residential movement, and parochial school enrollments.

Ideally, a prediction should be checked annually against data for every variable that entered into the forecasts. Since the United States census figures will not be available until after 1970, another method of obtaining census data would have to be used to do so. An annual pre-school census would help establish the pattern for this age group. In this way changes in trends could be spotted quickly. However, to take an accurate count of pre-school children is a large undertaking, and obviously an under-enumeration would seriously distort the school needs of the city.

The specific elements composing this methodology will be examined in turn.

Births

The number of births was estimated through 1964 for each census tract in order to find the 1970 5-9 age cohort. The method used takes into account changes that might occur in the population pyramid of the child-bearing age range of women (15-44). Since this method is based on the number of permanent potentially child-bearing women residents in each census tract, the number of transient or non-child-bearing

1. Whitla, Dean K., On the Prediction of School Enrollment, unpublished Special Paper, Graduate School of Education, Harvard University, December, 1954.

women must be subtracted from the total number of females listed by the 1960 census for each tract.

To arrive at reasonable estimates, all women in nurse's residences, convents, and student dormitories listed in the lodging-house reports filed with the Police Commissioner's office in Boston, were totaled by age cohort for each census tract in which they were located and subtracted from the 1960 census figures for that tract. To supplement the figures for women students, all educational institutions were contacted to obtain the number of women living in dormitories. Estimates were also made of women students living in private homes. This information made it possible to obtain the number of women in each census tract who constitute our child-bearing group. This was the first step in applying the "weighted mean" method of estimating births. The second step was to have the percentage of births for each five-year cohort of mothers. This was computed by obtaining a 10% sample of the birth certificates for 1960 in the Boston City Registrar's Office. The births were classified by five-year age cohorts according to the age of the mother and by white and non-white categories. Then, the percentage of total births by mother's age group was computed for whites and non-whites and is as follows:

Distribution of Births by Age of Mothers

Age Group	Whites	Non-Whites
15-19	.0796	.1101
20-24	.3239	.3517
25-29	.2699	.3008
30-34	.1938	.1483
35-39	.1106	.0805
40-44	.0221	.0085

The sum of cross products was obtained using the information on the number of women from Step 1 and distribution of births by cohort from Step 2. This sum is the "weighted mean" and was obtained for each census tract.

At this point the problem arises of determining the average number of births for a three-year period for each census tract. An average of births seemed desirable to even out any chance fluctuation. Ideally, since we are using the 1960 weighted mean, the three years that should be used are 1959, 1960, and 1961, but since the 1960 allocated births had not yet been compiled by the Commonwealth when this part of the demographic study was prepared, it was necessary to use the years 1957, 1958, and 1959 to establish the average.

The average births for 1957, 1958, and 1959 were then computed for boys and girls in each census tract. These were divided by the weighted mean 1960 for the census tract. The quotient represents the fertility ratio, which when multiplied by the weighted mean for 1965, gives an estimate of births for 1965. To estimate the number of births for the five-year span 1960-64, we took the sum of three times the 1957, 58, 59 average and two times the 1965 estimate. This last number was then used as the initial figure to produce the 1965 0-4 cohort estimate and which in 1970 becomes the 5-9 age cohort estimate.

The calculations for census tract W3A will serve as an example:

Calculations of Births 1960-64
Census Tract W3A

Age Group	Females*		Percentage		
15-19	254	x	.0796	=	20
20-24	391	x	.3239	=	127
25-29	301	x	.2699	=	81
30-34	340	x	.1938	=	66
35-39	387	x	.1106	=	43
40-44	337	x	.0221	=	7
			1960 Weighted Mean		344

*1960 Census

$$\frac{\text{Av.Births 57,58,59}}{\text{1960 Weighted Mean}} = \frac{201}{344} = .5843 \text{ (Fertility Ratio)}$$

Fertility Ratio	x	1965 Weighted Mean	=	1965 Estimated Births
.5843	x	292	=	170

Survival Rates

Before net migration could be computed, survival rates had to be established for the Boston population. Since the survival rates equal 1 minus the death rates, the death rates were computed first. The survival rate for a ten-year period was computed by multiplying the survival rate for each five-year age cohort by the survival rate for the following five-year age cohort.

The survival rates for babies born in 1955-59 were computed separately, since they had been alive on the average of only $2\frac{1}{2}$ years when the 1960 census was taken. Thus, the five-year survival rate had to be modified to $2\frac{1}{2}$ years for this group. Similarly, the children born in 1950-54 had been alive an average of 7½ years; therefore, a special survival rate had to be computed for them as well.

For children born 1955-59, the death rate was computed by dividing the 1960 deaths of children 0-2½ by the population age 0-2½. The death rate for 0-2½ year olds that results is for a one-year period. When multiplied by 2½, the result is the death rate for children born in 1955-59 for the period to the 1960 census. One minus the death rate gives the appropriate survival rate.

For children born in 1950-54, the survival rate was computed by dividing the 1960 deaths of children 5-7½ by the population 5-7½. This figure was multiplied by 2½ to produce the death rate for children 5-7½ for a 2½ year period. One minus this death rate gives the appropriate survival rate; then the survival rate of children 0-4 over a five-year period is multiplied by the survival rate for children 5-7½ for the 2½ year period between the ages of 5-7½. The result is the survival rate for children born in 1950-54 up to the time of the 1960 census. The survival rates for children born 1950-54 are used for the estimated 1960-64 births to predict the 1970 5-9 age cohort. All these figures were calculated separately by sex for the white population. Since the actual number of deaths for the non-white population was too low for a meaningful division by sex, a composite figure for both male and female non-whites was compiled.

Net Migration

The major problem in enrollment estimating is determining the migration pattern which exists for the period of the estimate. Between 1950 and 1960, Boston lost about 13% of its population. However, the pattern varied greatly, from census tract to census tract, and from one age cohort to another.

Since the actual number of variables affecting migration are numerous and so much relevant data unavailable, one assumption was used to incorporate them all. This assumption is that inflow or outflow of people in an area is a function of the people remaining. Thus, in an area with out-migration, it was assumed that as people left, the decrease in crowding and possibly rents would tend to reduce the rate of out-migration. Similarly, the increase in those areas with rising population was not expected to continue on the same percentage or arithmetical basis, since the most desirable housing would be taken first, rents could be expected to rise, and overcrowding would tend to reduce the rate of in-migration.

Through a series of examinations we found that the full log curve corresponded more closely than any other to our assumption. This basic assumption was then translated through full log graphs to a workable form in our prediction system. They were applied to all age cohorts by sex for each census tract - except those tracts affected by special conditions.

The migration curve for children born in 1960-64 was plotted on a curve parallel to that for children born 1955-59. (In this case the two base points for the line were brought closer together, since the time period between the first base period and the 1960 census was shorter than the decade between 1950 and 1960.)

For these children as well as for those born in 1950-54, the figures on births allocated by census tract by the Boston Health Office, Bureau of Vital Statistics, corrected by those from the Commonwealth Division of Vital Statistics, were used for the first base period.

Since the basic curve assumes that the influences affecting migration remain the same, evidence was sought for all the health and welfare areas to examine the reasonableness of this position. Project directors of the Boston Redevelopment Authority, settlement house directors, and welfare agency officials were among those asked whether to their knowledge any factor, aside from urban renewal, existed which would alter the population trend for the health and welfare area under discussion. Invariably the response was the same: i.e., that except for the impact of the urban renewal program, public housing, and the growth of the Negro population, the present population trends would continue.

These three major factors which were generally assumed to influence the future population in many census tracts throughout the city will be examined:

(1) the urban renewal program and major highway construction;

(2) present and projected public housing projects under the administration of the Boston Housing Authority;

(3) the growth and movement of the Negro population.

The effect of the urban renewal program can be determined only by the Boston Redevelopment Authority. The number of dwelling units demolished, the number of people displaced, the relocation plans, and new construction projects have yet to be finally decided. Since present plans are subject to modification, it would be unwise to incorporate them, for later changes would invalidate the population projections. By keeping the present figures independent of urban renewal plans, a base is provided which can be adjusted for any future planning. Two of the basic problems inherent in estimating the effect of renewal are changes in rate of occupancy and changes in the population characteristics of the inhabitants.

The public housing administered by the Boston Housing Authority constitutes a different matter which must be discussed at some length.

Public Housing

According to the present plans of the Boston Housing Authority, the new projects envisaged will accommodate persons 65 and over. Since little clearance of existing dwellings for their construction is foreseen, their influence on the school age population has been considered insignificant.

The age composition of the present public housing population is expected by the Boston Housing Authority to remain constant. This assumption has been incorporated into the present projections.

Since no population pyramid was available for the residents of public housing projects, a 20% sample of the over 14,000 present residents was taken and divided by sex into five year age cohorts; the residents of the state-aided and federally-aided housing developments were kept separate in order to respect differences in the age composition of the two groups.[1]

1. Exact figures were supplied by the Public Housing Authority for the Orchard Park and Columbia Point Projects.

The four population pyramids below resulted:

Age Group	State-Aided Projects		Federally-Aided Projects	
	Male	Female	Male	Female
0 - 4	20.27	18.43	16.43	12.43
5 - 9	20.42	16.12	16.62	12.74
10 - 14	14.11	13.74	14.11	12.19
15 - 19	5.01	4.36	10.50	7.14
20 - 24	1.58	3.63	5.07	4.11
25 - 29	6.09	7.73	4.84	6.06
30 - 34	8.67	8.72	4.79	5.33
35 - 39	8.02	7.20	3.42	5.01
40 - 44	5.52	5.42	3.65	5.05
45 - 49	3.51	2.31	4.16	4.67
50 - 54	.86	1,06	2.92	4.25
55 - 59	.64	1.98	2.28	3.80
60 - 64	.79	2.25	2.83	3.76
65 - 69	2.15	3.10	2.47	4.28
70 - 74	1.22	2.18	2.19	3.97
75 - 79	.79	1.19	1.83	3.17
80 - 84	.14	.33	1.14	1.32
85 plus	.21	.26	.73	.73

The population for each housing project was then distributed according to the appropriate male and female population pyramids. The resulting numbers were subtracted from the 1960 census by age cohort for the census tract in which the project was located; since no records are available for the 1950 public housing population, the same numbers were retrojected to the 1950 census figures and subtracted. The basic curve was then applied to the remaining population to give the 1965 and 1970 projections for the non-public housing population. The population pyramid for the housing population was then carried as a constant and added for a total 1965 and 1970 projection.

Where a public housing project was divided into two or more census tracts, an estimate was made of the proportionate distribution of the public housing residents in each tract and the same procedure described above was used with, however, only the appropriate fraction of the housing project population.

Housing projects constructed since 1950 posed a special problem. Although the present population could be held as a constant for the 1965 and 1970 projections, it could not be subtracted from the 1950 population to produce a 1950 base point for the non-public housing population. An estimate was produced in the following manner: using the 1950 and 1960 population figures for the contiguous census tracts, an average percentage of net migration for the surrounding territory was established. This average was used for the net migration of each of the five-year cohorts of the non-public housing population in the tracts with projects constructed since

1950. The 1950 base point for this population was then estimated by the following formula:

$$\frac{\text{1960 non-public housing population}}{\text{Average \% of net migration in contiguous tracts}} = \text{1950 non-public housing population}$$

With the 1950 base point estimated, the curve was applied to each five-year age cohort to produce 1965 and 1970 population estimates of the total population in the census tract in 1965 and 1970.

Since for most census tracts the Boston Health Office, Bureau of Vital Statistics, records births separately for public and non-public housing populations, the 1950-54 and 1955-59 non-public housing births, corrected by the Commonwealth figures, were available for projections. In the few tracts where separate records were not kept, estimates were made by subtracting the public housing population by five-year age cohorts, male and female, from the total population as given by the United States census in 1960 and using the average net migration rate of the surrounding tracts to establish the net migration curve.

Negro Movement

The third factor that modifies the basic curve was the anticipated growth of the Negro population. Interest in this question increases upon examination of the Negro population pyramid and the trend in migration for Negroes.

The 1960 census reveals a population of approximately 68,000 non-whites in the City of Boston. About 63,000 of these are Negroes;

the other non-whites are principally of Asian descent and are located in census tract G-2. Interestingly, the median age for non-whites, male and female, is 26.5 and 26.1 years, respectively, as contrasted to the median age for white males of 31.5 and for white females of 36.2 years. The population pyramid of Negroes correspondingly shows a large concentration at the school age level.

The continuing influx of young Negroes, the low median age of the present residents, and a high fertility rate, indicates that the population pyramid among the school age cohorts should remain substantially the same in 1970 as it was in 1960.

Applying the projection procedure to the Negro population indicates that it will fall a few thousand short of 100,000 by 1970. Since there was no evidence found to indicate there would be a drop in the inflow of Negroes before 1970, 100,000 was selected as the most reasonable estimate of the Negro population in Boston in 1970. Even if by that time, the Negro population should not reach 100,000, births and in-migration should in all probability bring the Negro population to this total by 1972.

The intra-city migration patterns of the Negroes were next examined. The opinions of persons professionally acquainted with the pattern of Negro residential movements were sought, and an outline of the area to be affected by 1970 emerged from the various interviews. This area comprises the following census tracts: J-2, L-2, L-3, L-6, P-3, P-4, P-5, P-6, Q-1, Q-2, Q-3, Q-4, Q-5, R-1, R-2, R-3, S-3, T-6, T-7A, T-7B, T-8A, U-1, U-2, U-3, U-4, U-5, U-6A, U-6B, V-1.

It was assumed that after substantial Negro movement into predominantly white areas, a heavy population shift would follow, marked by the almost total exodus of white families and the inflow of more Negroes. The exodus of whites in these areas was expected to be almost complete by 1970, though on the borders an irregular line would in places be more accurate.

The basic curve was used to project the total population of each census tract affected by Negro movement to 1970 on the basis of total net migration between 1950 and 1960. Then the estimated total 1970 population for each census tract was increased by 5% for expected overcrowding. The total projected population in these areas for 1970 was approximately 92,000. The remaining 8,000 Negroes are expected to form pockets in the surrounding still predominantly white area. The greater density of Negro school age children in these pockets is expected to balance the lower density of white school age children in white pockets at the periphery of the predominantly Negro area.

Within each census tract inside this area, the school age children were estimated according to the proportions of the overall Negro population pyramid.

Since these areas will be in transition in 1965, for each five-year age cohort, the 1960 and estimated 1970 figures were averaged for the 1965 estimate.

With the population projections now completed by sex for cohorts 5-9, 10-14, and 15-19, in 1965 and 1970 in each census tract, the projection of the public school enrollments was undertaken.

Public School Enrollments

Because of the difficulty of isolating the effect on enrollment in sub-areas of the city of a system of parochial schools, some of which are Diocesan, and where Diocesan and parish lines do not correspond to city limits, the following procedure was followed. It takes into account the effect of both the parochial and private school enrollments and the retention rate at the secondary school level among other factors. For the K-6 grades or any subdivision thereof, the 1960 public school enrollment was assigned to a GNRP or Improvement Area by the location of the school. Throughout this procedure, Dorchester Improvement Area was sub-divided into four sections, not only because of its size but also for the differences in population composition and characteristics between these sections. Any crossing of boundary lines was considered either to wash out or to have the same influence in 1965 and 1970 as it did in 1960. The procedure was to subtract the 1960 enrollment in each GNRP and Improvement Area from the appropriate 1960 population figure to obtain a constant. This constant was applied to the appropriate population figures for 1965 and 1970, yielding the predicted public school enrollment for those years. While this constant represents all those of the appropriate age groups not enrolled in public schools for whatever reason, by far the most of it is parochial enrollment.

The existence of junior high schools serving large areas, and the secondary schools in general, with their differing organizations and functions, made it necessary to establish a different procedure for allocating pupils at this level to the proper area. It was assumed that the pupils in grades 7 and 8 were distributed in the city in the same proportion as the pupils in grades 5 and 6. Using the 5th and 6th grade figures for 1960, percentages of the total enrollment were found for each area. These percentages were then applied to the total 1960 enrollments for grades 7 and 8 to distribute them properly and the above procedure followed for 1965 and 1970 estimates.

To obtain the estimates for grades 10-12, two separate steps were taken. The first was to determine the enrollments of students from each area. This information was compiled from data collected from a sample of names of secondary school students drawn from school rosters and located in the various census tracts using students' home addresses. This sample was of 20% generally and of 100% for some small programs. The 9th grade was assumed to follow this same distribution relative to the 10-12 grades as the 7th and 8th grades were to the 5th and 6th.

The second step was one of determining a constant and was carried out in a manner similar to that used with the lower grades except that a retention figure was included. For the 10-12 grades a factor of .74[1] was applied to the appropriate 1960 population. From this result was subtracted the 1960 enrollment to obtain a constant.

Then to the 1965 and 1970 population estimates the factor of .74 was applied and the constant subtracted to obtain the projected public school enrollments.

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1. Computed by dividing the public and parochial enrollment grades 10-12 by the appropriate age population.

To obtain enrollment estimates on areas smaller than GNRP's or Improvement Areas, the total enrollments were proportioned according to the distribution of the appropriate population. An example, using Charlestown, follows:

1960		1965		1970	
5-9 Pop.	1,972	5-9 Pop.	2,047	5-9 Pop.	2,172
Enrol.	1,193	- Constant	829	- Constant	829
Constant	829	Enrol.Est.	1,218	Enrol.Est.	1,343

K-4 Enrollment Estimates By Census Tract For Charlestown in 1965

Census Tract	5-9 Pop.	Proportion[1] .595
C-1	201	120
C-2	343	204
C-3	410	244
D-1	85	50
D-2	44	26
D-3	207	123
D-4	247	147
E-1	307	183
E-2	203	121

Conclusion

A seeming paradox remains to be explained, for though the total population of the city is expected to decline by 1970, the 5-9 and 10-14 age cohorts for that year are larger than the 5-9 and 10-14 age cohorts in 1960. The 15-19 population in 1970, however, shows a drop from the 15-19 population in 1960. The solution to the paradox lies in two factors: the decreased rate of decline of the white population and the increase of Negroes in the youngest age cohorts.

1. This figure indicates that approximately 40% of the 5-9 children in Charlestown do not attend public schools. Corresponding figures for other age groups and other sections of the city vary widely, roughly according to the composition of the population.

The effect of these factors is demonstrated in the contrasting 10-14 age cohorts for 1960 and 1970: in 1950, the 0-4 age cohort numbered 71,038 and in 1960, the 10-14 age cohort numbered only 50,780; in 1960, the 0-4 age cohort numbered 66,019; however, the 1970 10-14 age cohort is expected to number 55,111.

The projected 1970 15-19 age cohort numbers 47,215; this figure, however, is not comparable to the 1960 15-19 age cohort in the United States census data, which numbers 51,917. Boston attracts large numbers of university students, nurses, and high school graduates seeking further training or work. Since the population projections have been made solely to provide a basis to estimate public school enrollment, no reason was seen to take into account this post high school population. Thus it does not appear in estimates for 1965 and 1970. To compare the 1970 15-19 population projections with the appropriate figures for 1960, two steps must be taken. For 1960, the 15, 16, and 17-year-olds (the high school age portion of the 15-19 cohort) are counted; they total 28,603. Then the projected 1970 15-19 age cohort is multiplied by 60% to give as a corresponding figure, 28,329. In computing enrollments in grades 10-12, these post-secondary populations were removed from the 1960 census data where necessary.

Since non-public school enrollments are held constant, the public school enrollments reflect these population increases. It is obvious that increases in non-public school attendance both city-wide and in specific areas should be noted as they would materially affect enrollment predictions made here.

APPENDIX B

POPULATION BY SELECTED AGE GROUPS, 1960-1970

ENROLLMENT PROJECTIONS BY GRADE LEVELS, 1960-1970

AGE DISTRIBUTION OF POPULATION BY CENSUS TRACT

AGE GROUP 0-4

	1960		1965	
	M	F	M	F
A-1	415	360	425	360
A-2	192	200	196	215
A-3	272	288	259	291
A-4	246	239	234	241
A-5	266	237	251	239
A-6	173	154	168	159
B-1	110	99	100	95
B-2	121	103	114	102
B-3	166	123	181	132
B-4	53	54	48	51
B-5A	105	107	93	99
B-5B	229	201	213	198
B-6	4	3	4	4
C-1	102	103	102	103
C-2	177	160	214	203
C-3	229	232	261	280
D-1	49	53	40	45
D-2	34	34	34	35
D-3	123	111	114	106
D-4	154	129	146	130
E-1	166	171	168	180
E-2	124	109	108	97
F-1	123	121	109	113
F-2	148	134	135	129
F-3	6	5	6	5
F-4	112	123	104	120
F-5	73	95	68	93
F-6	11	12	11	13
G-1	23	16	19	15
G-2	69	76	69	80
G-3	7	7	6	6
G-4	10	7	8	9
H-1	4	7	0	0
H-2	0	0	0	0
H-3	2	3	17	18
H-4	62	63	49	53
I-1	78	67	72	66
I-2	18	17	6	6
I-3	154	160	147	162
I-4	172	159	172	159

AGE GROUP 0-4

	1960		1965	
	M	F	M	F
J-1	52	45	44	40
J-2	80	85	110	115
J-3	26	26	21	23
J-4	59	62	53	59
J-5	89	83	67	66
K-1	80	60	55	43
K-2	65	78	44	55
K-3	32	52	20	35
K-4A	22	29	15	21
K-4B	159	146	113	110
K-5	58	48	40	34
L-1	70	90	63	85
L-2	164	137	231	223
L-3	100	99	148	150
L-4	64	83	62	85
L-5	32	34	22	25
L-6	39	33	95	95
M-1	72	50	70	53
M-2	92	92	75	79
M-3	368	372	312	317
M-4	54	36	48	42
N-1	309	284	218	210
N-2	207	182	192	181
N-3	147	140	139	137
N-4	235	231	283	294
O-1	296	296	293	313
O-2	350	311	359	378
O-3	154	153	158	166
O-4	34	39	30	35
P-1A	66	59	32	30
P-1B	189	157	217	217
P-1C	92	80	88	79
P-2	202	202	206	217
P-3	176	170	235	237
P-4	206	183	231	224
P-5	295	320	331	350
P-6	216	168	285	267
Q-1	49	41	54	52
Q-2	212	170	186	169
Q-3	287	303	324	340
Q-4	126	137	162	171
Q-5	268	244	287	280

AGE GROUP 0-4

	1960 M	1960 F	1965 M	1965 F
R-1	237	230	233	235
R-2	104	98	74	71
R-3	169	178	178	188
S-1	275	261	271	271
S-2	232	202	181	182
S-3	217	234	258	271
S-4	167	181	153	175
S-5	186	176	166	162
S-6	165	171	150	161
T-1	825	817	825	817
T-2	378	326	365	310
T-3A	141	144	148	159
T-3B	270	253	282	278
T-4A	225	206	227	218
T-4B	261	229	270	247
T-5A	347	351	361	363
T-5B	286	272	289	288
T-6	383	413	423	445
T-7A	157	146	204	202
T-7B	350	330	481	481
T-8A	377	393	584	607
T-8B	227	238	227	250
T-9	353	342	383	375
T-10	192	199	168	184
U-1	317	347	391	413
U-2	292	279	332	332
U-3	231	213	309	306
U-4	294	299	354	363
U-5	457	431	556	553
U-6A	269	322	367	401
U-6B	275	296	404	423
V-1	193	196	271	278
V-2	466	482	455	472
V-3	210	212	210	222
V-4A	99	69	94	69
V-4B	183	191	202	220
V-5	352	338	352	352
V-6	349	318	344	333
W-1A	457	432	548	551
W-1B	421	408	446	455
W-2	241	240	235	245
W-3A	438	408	517	474
W-3B	71	63	78	72
W-4A	134	109	163	140
W-4B	426	373	472	449
W-5	477	454	442	444

AGE GROUP 0-4

	1960		1965	
	M	F	M	F
W-6A	241	265	240	277
W-6B	236	223	258	258
W-6C	238	218	256	249
W-6D	429	393	439	428
X-1	437	395	443	418
X-2	544	535	558	570
X-3A	242	257	231	256
X-3B	281	239	286	256
X-4A	376	345	380	367
X-4B	276	264	285	289
X-5A	419	417	395	395
X-5B	119	149	112	147
X-5C	242	269	257	299
X-6A	272	256	281	280
X-6B	526	460	486	414
X-6C	235	216	246	236
Y-1	275	266	267	272
Y-2	337	370	332	382
Y-3A	239	245	163	176
Y-3B	570	563	497	499
Y-4	568	541	623	564
Y-5A	307	297	311	316
Y-5B	296	291	300	309
Y-5C	219	207	173	173
Z-1A	303	336	339	385
Z-1B	306	261	283	253
Z-1C	649	586	682	698
Z-2	759	740	770	769

AGE GROUP 5-9

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
A-1	367	352	398	329	420	354
A-2	161	163	172	192	181	211
A-3	249	184	240	274	234	281
A-4	189	195	216	212	211	218
A-5	224	212	219	188	212	193
A-6	122	100	172	146	172	154
B-1	85	71	97	85	91	83
B-2	77	83	102	80	98	82
B-3	152	144	168	114	184	117
B-4	56	51	27	29	35	28
B-5A	108	95	92	98	84	93
B-5B	178	199	215	184	205	181
B-6	2	0	4	3	4	4
C-1	99	91	97	104	102	103
C-2	137	144	182	161	222	203
C-3	217	209	200	210	227	252
D-1	53	46	39	46	33	40
D-2	40	38	22	22	22	24
D-3	104	93	110	97	104	94
D-4	123	110	139	108	136	112
E-1	134	114	147	160	152	169
E-2	116	104	115	88	96	81
F-1	103	112	113	114	103	109
F-2	117	108	131	115	122	114
F-3	5	4	1	1	1	1
F-4	119	148	83	101	80	101
F-5	74	72	54	89	52	89
F-6	8	6	6	8	6	8
G-1	24	14	12	7	11	6
G-2	83	86	47	58	48	62
G-3	5	9	4	4	3	4
G-4	10	11	9	5	7	8
H-1	22	16	0	1	0	0
H-2	0	1	0	0	0	0
H-3	1	4	0	0	17	18
H-4	58	56	34	37	28	32
I-1	91	68	54	44	51	44
I-2	8	10	9	9	3	3
I-3	140	129	114	127	112	131
I-4	173	180	173	180	170	156

AGE GROUP 5-9

	1960		1965		1970	
	M	F	M	F	M	F
J-1	28	44	27	21	23	19
J-2	53	51	84	88	112	120
J-3	12	13	15	16	13	14
J-4	58	42	40	47	39	45
J-5	40	44	44	42	35	33
K-1	29	38	42	26	30	19
K-2	28	33	34	47	23	34
K-3	20	15	10	24	7	17
K-4A	14	13	7	12	5	9
K-4B	50	50	74	67	54	51
K-5	24	29	39	21	19	16
L-1	77	45	37	59	34	56
L-2	99	91	176	197	237	255
L-3	73	63	112	113	156	167
L-4	55	48	42	67	41	71
L-5	27	33	15	19	12	15
L-6	29	16	68	65	121	130
M-1	64	54	55	31	58	33
M-2	93	94	72	75	60	65
M-3	326	330	314	276	313	318
M-4	36	43	44	22	40	20
N-1	222	245	279	251	203	191
N-2	171	188	172	143	166	148
N-3	115	104	118	112	114	112
N-4	198	198	231	233	287	302
O-1	262	243	239	249	245	269
O-2	228	216	358	309	341	372
O-3	147	151	133	139	141	154
O-4	45	44	23	29	20	27
P-1A	52	60	37	31	18	17
P-1B	132	131	219	223	217	217
P-1C	75	67	77	62	76	63
P-2	204	171	160	167	167	183
P-3	149	145	181	160	234	252
P-4	138	163	185	175	204	219
P-5	265	242	265	280	292	314
P-6	129	121	220	199	282	303
Q-1	37	43	44	40	48	52
Q-2	158	156	164	144	145	156
Q-3	299	257	269	279	314	337
Q-4	122	108	126	132	158	170
Q-5	191	158	231	221	243	261

AGE GROUP 5-9

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
R-1	186	196	203	201	212	228
R-2	91	101	66	62	35	37
R-3	135	173	150	155	162	175
S-1	260	247	256	256	260	265
S-2	209	180	184	186	180	181
S-3	172	166	203	214	237	255
S-4	140	130	143	172	137	169
S-5	149	156	141	133	128	125
S-6	156	132	133	147	125	142
T-1	777	748	774	779	805	797
T-2	299	287	341	244	338	253
T-3A	127	115	99	105	105	119
T-3B	231	207	220	205	236	228
T-4A	147	187	182	164	190	178
T-4B	184	184	239	198	253	218
T-5A	263	256	324	350	350	353
T-5B	197	205	212	203	220	218
T-6	299	289	338	357	368	395
T-7A	106	116	158	154	199	214
T-7B	276	286	370	362	486	522
T-8A	319	346	447	460	648	696
T-8B	184	156	196	220	200	237
T-9	312	279	319	313	357	350
T-10	165	184	198	116	179	201
U-1	244	257	306	323	369	397
U-2	213	254	265	260	296	319
U-3	172	177	238	232	307	330
U-4	277	278	279	283	329	353
U-5	369	371	436	427	520	559
U-6A	221	217	258	311	369	397
U-6B	210	216	292	320	423	455
V-1	122	157	208	210	277	298
V-2	482	444	415	445	414	431
V-3	137	147	183	192	188	205
V-4A	64	71	79	44	76	45
V-4B	139	127	158	177	179	207
V-5	251	274	276	268	282	285
V-6	266	269	316	281	322	300
W-1A	432	376	433	404	529	531
W-1B	369	349	392	384	429	438
W-2	189	174	180	185	181	193
W-3A	334	324	427	384	516	473
W-3B	38	52	53	45	60	53
W-4A	110	87	105	77	142	100
W-4B	353	353	428	356	496	437
W-5	409	351	406	385	386	384

AGE GROUP 5-9

	1960		1965		1970	
	M	F	M	F	M	F
W-6A	241	231	193	234	197	250
W-6B	232	223	237	225	266	265
W-6C	267	233	224	203	250	236
W-6D	353	337	408	370	432	410
X-1	380	341	382	338	397	361
X-2	374	413	473	478	497	523
X-3A	223	230	203	234	199	238
X-3B	239	229	257	203	270	220
X-4A	315	275	306	276	320	300
X-4B	168	223	252	245	270	273
X-5A	414	386	400	375	410	410
X-5B	118	115	91	139	88	140
X-5C	180	194	211	263	231	299
X-6A	325	309	242	227	258	253
X-6B	497	466	469	397	418	383
X-6C	215	177	218	197	235	220
Y-1	266	187	246	242	245	253
Y-2	251	233	251	310	255	326
Y-3A	118	140	142	154	100	114
Y-3B	506	445	545	505	470	469
Y-4	462	466	533	474	604	532
Y-5A	268	241	286	282	297	307
Y-5B	202	193	236	240	248	260
Y-5C	96	89	126	114	98	97
Z-1A	285	260	280	341	318	401
Z-1B	288	259	267	212	254	209
Z-1C	590	558	657	587	721	728
Z-2	600	569	770	753	799	799

AGE GROUP 10-14

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
A-1	278	304	319	330	389	324
A-2	190	178	153	157	162	190
A-3	233	194	237	162	221	268
A-4	182	156	174	184	198	197
A-5	223	208	198	187	194	160
A-6	121	125	108	86	176	143
B-1	89	80	79	64	90	76
B-2	101	74	63	70	90	67
B-3	137	136	139	142	169	109
B-4	67	56	41	37	16	19
B-5A	91	92	102	86	85	93
B-5B	172	152	159	186	209	170
B-6	20	2	1	0	4	3
C-1	79	73	81	89	91	104
C-2	110	126	112	131	186	161
C-3	205	197	190	193	182	196
D-1	56	52	48	40	34	43
D-2	47	39	35	33	15	17
D-3	109	110	95	83	104	88
D-4	124	110	108	94	132	96
E-1	118	108	112	94	137	154
E-2	83	99	102	90	95	76
F-1	123	100	93	104	108	111
F-2	145	135	92	95	121	104
F-3	9	8	3	1	0	0
F-4	124	145	96	131	67	89
F-5	83	80	61	59	44	86
F-6	7	4	5	4	4	6
G-1	18	17	17	8	7	3
G-2	77	73	71	75	37	48
G-3	3	3	3	4	0	0
G-4	10	10	8	9	8	4
H-1	21	16	9	6	0	0
H-2	1	0	0	0	0	0
H-3	3	3	0	1	0	0
H-4	64	56	39	38	22	24
I-1	76	68	74	52	42	32
I-2	12	10	4	5	5	5
I-3	134	110	108	100	93	108
I-4	179	169	179	169	170	177

AGE GROUP 10-14

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
J-1	35	51	16	28	16	13
J-2	40	35	61	62	89	91
J-3	19	24	6	7	11	11
J-4	51	53	45	30	33	38
J-5	65	47	20	23	27	24
K-1	43	43	15	22	26	15
K-2	36	27	17	21	21	32
K-3	25	30	10	7	4	14
K-4A	17	20	7	7	3	5
K-4B	55	56	25	25	42	37
K-5	37	31	14	18	16	12
L-1	48	56	57	28	23	43
L-2	61	54	122	122	189	193
L-3	47	71	84	82	124	126
L-4	44	47	40	34	31	58
L-5	26	20	15	20	10	12
L-6	23	28	51	47	97	98
M-1	53	61	51	41	46	21
M-2	96	82	70	72	61	65
M-3	224	278	216	236	314	276
M-4	27	32	23	30	38	16
N-1	207	196	189	218	265	233
N-2	192	186	143	164	153	122
N-3	108	128	100	89	103	96
N-4	194	192	174	176	233	238
O-1	234	256	229	210	208	222
O-2	225	235	191	210	365	305
O-3	172	133	127	134	122	130
O-4	42	49	38	47	17	24
P-1A	59	56	34	43	24	20
P-1B	134	130	186	214	219	223
P-1C	63	62	62	54	69	52
P-2	184	199	185	150	137	147
P-3	144	143	147	149	187	190
P-4	145	125	131	148	163	166
P-5	180	204	221	217	234	238
P-6	115	109	150	153	225	229
Q-1	31	33	33	37	39	39
Q-2	118	139	123	125	116	118
Q-3	233	227	245	230	251	255
Q-4	99	109	110	106	126	128
Q-5	182	161	169	158	194	197

AGE GROUP 10-14

	1960		1965		1970	
	M	F	M	F	M	F
R-1	133	156	157	167	170	172
R-2	65	69	66	78	51	47
R-3	141	116	126	140	130	132
S-1	207	193	227	234	245	251
S-2	195	187	155	179	183	185
S-3	122	153	158	160	190	193
S-4	110	119	126	117	131	165
S-5	132	187	112	122	115	108
S-6	150	148	136	112	116	133
T-1	546	546	691	713	741	750
T-2	261	259	275	265	321	210
T-3A	125	133	105	95	76	85
T-3B	174	208	194	180	192	176
T-4A	180	168	119	168	159	140
T-4B	187	183	164	166	228	180
T-5A	254	210	246	242	318	364
T-5B	210	216	173	185	171	163
T-6	221	224	261	265	294	299
T-7A	83	103	113	123	159	162
T-7B	275	258	285	302	389	395
T-8A	322	350	356	384	518	527
T-8B	143	125	169	138	178	210
T-9	247	276	293	256	301	297
T-10	177	170	158	185	205	128
U-1	209	224	234	249	295	300
U-2	177	181	197	223	237	241
U-3	165	164	179	188	246	250
U-4	198	250	238	246	263	267
U-5	293	299	342	355	416	423
U-6A	214	189	223	229	295	300
U-6B	171	185	233	246	338	344
V-1	137	113	145	168	222	225
V-2	358	352	456	426	387	419
V-3	118	117	113	132	168	182
V-4A	63	74	54	63	66	31
V-4B	138	113	117	107	144	168
V-5	261	268	207	237	234	228
V-6	259	255	236	244	300	259
W-1A	370	381	407	362	424	394
W-2	187	197	159	144	147	154
W-1B	407	363	358	339	379	373
W-3A	272	260	296	308	426	383
W-3B	46	44	30	46	43	36
W-4A	88	83	109	82	90	60
W-4B	351	308	329	334	437	347

AGE GROUP 10-14

	1960		1965		1970	
	M	F	M	F	M	F
W-5	380	390	385	323	363	342
W-6A	230	228	226	217	166	217
W-6B	246	264	240	229	243	229
W-6C	269	252	277	238	220	194
W-6D	302	285	358	342	404	358
X-1	321	368	337	297	351	297
X-2	362	348	328	383	433	445
X-3A	227	192	204	215	181	221
X-3B	240	246	220	210	246	181
X-4A	290	279	279	237	268	236
X-4B	175	177	137	205	242	234
X-5A	367	372	346	355	390	366
X-5B	146	149	103	101	76	133
X-5C	182	195	161	181	195	263
X-6A	354	376	311	295	227	210
X-6B	485	456	438	428	411	366
X-6C	209	180	220	173	210	186
Y-1	214	176	254	161	230	229
Y-2	227	220	218	201	205	248
Y-3A	149	142	73	93	97	110
Y-3B	368	389	417	404	533	492
Y-4	424	375	407	432	514	442
Y-5A	194	208	270	237	276	275
Y-5B	249	201	169	162	201	188
Y-5C	134	114	55	51	78	74
Z-1A	265	277	283	255	268	350
Z-1B	279	230	276	244	246	183
Z-1C	511	454	571	555	674	604
Z-2	587	529	597	574	789	772

AGE GROUP 15-19

	1960		1965		1970	
	M	F	M	F	M	F
A-1	201	225	210	225	315	327
A-2	151	153	192	176	147	154
A-3	192	215	208	169	228	147
A-4	163	183	165	136	166	176
A-5	199	182	196	182	179	169
A-6	85	113	104	115	98	76
B-1	77	68	79	70	74	58
B-2	82	80	87	63	53	61
B-3	110	109	102	85	140	143
B-4	54	68	49	43	31	28
B-5A	85	81	80	81	95	80
B-5B	163	147	150	129	146	179
B-6	125	4	6	2	1	0
C-1	179	85	58	53	77	89
C-2	125	129	78	78	105	124
C-3	185	174	166	143	181	185
D-1	43	40	53	47	43	36
D-2	33	31	39	32	31	29
D-3	79	83	100	101	87	76
D-4	109	107	112	99	96	83
E-1	100	126	97	86	98	80
E-2	81	69	75	88	92	80
F-1	102	97	118	93	84	98
F-2	131	140	132	122	80	85
F-3	7	8	5	6	0	1
F-4	114	119	105	125	78	117
F-5	57	72	73	67	52	51
F-6	10	5	5	3	4	2
G-1	12	11	15	15	13	6
G-2	29	69	75	69	62	68
G-3	3	4	2	2	0	0
G-4	31	5	8	8	6	8
H-1	14	8	8	5	5	3
H-2	0	1	0	0	0	0
H-3	22	60	1	1	0	0
H-4	79	63	49	41	28	28
I-1	63	68	66	57	63	41
I-2	8	11	6	5	0	0
I-3	89	108	114	90	88	82
I-4	112	97	112	97	178	165

AGE GROUP 15-19

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
J-1	61	102	24	43	9	19
J-2	34	48	49	49	68	73
J-3	32	33	14	20	4	5
J-4	88	47	40	45	37	23
J-5	290	172	45	29	12	14
K-1	63	60	28	30	9	14
K-2	71	179	28	22	11	15
K-3	233	527	16	21	6	4
K-4A	897	1348	11	15	0	0
K-4B	128	160	33	34	14	14
K-5	264	299	30	24	7	12
L-1	52	47	34	44	44	19
L-2	63	84	91	94	144	154
L-3	64	72	63	80	94	101
L-4	39	57	35	38	30	25
L-5	27	151	17	12	10	13
L-6	23	184	42	48	73	79
M-1	47	54	43	53	42	33
M-2	100	89	82	67	55	58
M-3	110	106	77	75	216	236
M-4	34	35	20	25	17	23
N-1	200	199	183	165	171	199
N-2	137	170	179	170	125	148
N-3	104	93	97	127	88	78
N-4	161	169	181	184	156	161
O-1	204	250	213	238	206	187
O-2	162	148	166	136	188	210
O-3	119	149	161	122	114	121
O-4	28	34	39	30	32	42
P-1A	50	40	53	50	25	32
P-1B	126	129	139	125	186	214
P-1C	53	71	57	52	52	45
P-2	145	179	178	185	171	136
P-3	127	150	131	138	142	152
P-4	83	112	124	120	124	133
P-5	157	150	164	185	177	191
P-6	93	123	129	134	171	184
Q-1	38	31	28	30	29	31
Q-2	105	109	96	111	88	94
Q-3	156	179	196	202	190	204
Q-4	75	87	90	99	96	103
Q-5	161	152	153	149	147	158

AGE GROUP 15-19

	1960 M	1960 F	1965 M	1965 F	1970 M	1970 F
R-1	110	114	120	138	129	138
R-2	58	66	41	45	57	63
R-3	87	89	112	104	98	106
S-1	197	1147	167	124	221	230
S-2	176	152	116	105	154	178
S-3	138	140	121	144	144	155
S-4	111	234	94	107	116	106
S-5	193	439	111	184	89	100
S-6	121	134	141	143	123	98
T-1	376	350	445	371	670	701
T-2	215	229	246	248	256	250
T-3A	109	154	113	125	90	81
T-3B	163	169	152	190	186	162
T-4A	156	158	171	157	102	155
T-4B	148	160	184	187	149	154
T-5A	193	205	240	189	233	231
T-5B	172	176	195	212	156	171
T-6	155	179	204	216	223	240
T-7A	81	91	92	108	120	130
T-7B	189	219	261	266	294	317
T-8A	278	295	325	358	393	422
T-8B	131	141	134	109	158	130
T-9	230	272	230	273	278	240
T-10	153	158	182	171	153	186
U-1	151	193	198	216	224	241
U-2	133	142	164	174	180	193
U-3	115	120	160	169	186	200
U-4	175	180	182	218	199	214
U-5	176	237	278	297	315	339
U-6A	143	154	201	199	224	241
U-6B	116	152	193	212	256	276
V-1	111	92	139	135	168	180
V-2	205	230	274	211	464	422
V-3	120	134	98	98	98	112
V-4A	162	68	61	73	46	56
V-4B	112	137	124	104	103	93
V-5	282	273	236	255	176	209
V-6	224	219	249	233	215	226
W-1A	321	378	340	350	401	357
W-1B	351	345	411	370	353	330
W-2	145	175	161	178	139	125
W-3A	231	254	219	198	295	308
W-3B	46	59	42	40	25	41
W-4A	80	95	83	80	110	78
W-4B	253	276	357	307	312	319
W-5	320	318	369	388	367	302

AGE GROUP 15-19

	1960		1965		1970	
	M	F	M	F	M	F
W-6A	221	193	225	232	214	207
W-6B	244	241	260	279	246	234
W-6C	226	234	282	269	286	243
W-6D	237	275	306	280	362	346
X-1	295	329	274	323	306	266
X-2	319	345	336	322	296	358
X-3A	193	183	220	185	191	205
X-3B	208	290	232	245	205	196
X-4A	218	260	264	261	253	212
X-4B	183	205	162	268	117	191
X-5A	257	243	264	265	341	351
X-5B	142	154	137	136	92	92
X-5C	173	171	171	181	147	171
X-6A	378	379	341	367	300	285
X-6B	285	318	405	374	418	413
X-6C	162	189	197	168	223	171
Y-1	150	158	198	155	244	144
Y-2	222	234	187	186	194	177
Y-3A	176	188	115	104	49	66
Y-3B	233	420	247	249	412	400
Y-4	304	344	350	300	393	417
Y-5A	194	189	186	196	271	235
Y-5B	242	222	225	170	146	141
Y-5C	198	173	98	82	36	33
Z-1A	225	225	260	274	280	252
Z-1B	218	238	274	221	266	233
Z-1C	296	303	479	414	579	573
Z-2	433	458	582	507	603	581

SCHOOL ENROLLMENTS

Projections for 1965

Tract	K-5	K-6	6-8	7-9	10-12
A-1	598	678	248	258	149
A-2	298	336	118	123	126
A-3	416	465	152	159	130
A-4	349	393	136	142	103
A-5	338	385	147	153	130
A-6	250	274	74	77	75
B-1	148	166	54	57	51
B-2	146	162	51	53	52
B-3	236	271	107	112	64
B-4	50	60	30	31	32
B-5A	158	181	72	75	55
B-5B	327	369	132	137	96
B-6	0	0	0	0	0
C-1	136	151	46	54	32
C-2	226	248	67	77	45
C-3	279	313	105	121	89
D-1	59	67	24	28	29
D-2	32	38	19	21	21
D-3	139	155	49	56	58
D-4	165	183	55	64	61
E-1	202	220	56	65	53
E-2	139	156	53	60	47
F-1	74	81	18	16	35
F-2	79	85	17	15	43
F-3	1	1	0	0	3
F-4	61	69	21	18	39
F-5	47	51	11	9	24
F-6	11	12	3	3	2
G-1	44	54	30	23	15
G-2	244	304	175	132	72
G-3	17	20	9	6	2
G-4	32	39	20	15	8
H-1	0	1	1	1	2
H-2	0	0	0	0	0
H-3	0	0	0	0	0
H-4	23	26	7	6	15
I-1	96	114	59	56	35
I-2	16	17	4	4	3
I-3	219	250	97	93	59
I-4	328	379	162	155	61

Projections for 1965

Tract	K-5	K-6	6-8	7-9	10-12
J-1	52	60	24	22	21
J-2	170	189	60	56	28
J-3	56	58	7	6	6
J-4	163	177	42	36	14
J-5	63	66	10	9	14
K-1	22	23	3	3	10
K-2	26	27	3	3	8
K-3	61	64	10	8	6
K-4A	14	15	3	3	5
K-4B	102	106	11	11	13
K-5	108	114	18	15	14
L-1	88	100	40	38	23
L-2	326	362	114	109	53
L-3	200	224	77	74	41
L-4	95	106	35	33	21
L-5	32	37	16	16	8
L-6	118	132	46	44	26
M-1	62	70	23	27	32
M-2	103	115	36	41	49
M-3	403	440	113	130	50
M-4	45	49	13	15	15
N-1	362	395	102	117	115
N-2	221	246	77	89	115
N-3	159	174	47	54	74
N-4	317	346	88	101	120
O-1	339	375	110	127	149
O-2	447	480	100	116	100
O-3	190	211	65	75	93
O-4	39	46	21	25	23
P-1A	48	54	19	22	34
P-1B	308	341	100	115	87
P-1C	113	127	43	45	38
P-2	278	318	125	129	127
P-3	355	401	141	132	89
P-4	370	413	133	125	81
P-5	563	631	208	195	116
P-6	428	475	144	135	87
Q-1	87	98	33	31	19
Q-2	312	350	118	111	60
Q-3	571	644	226	212	132
Q-4	268	301	103	96	63
Q-5	462	512	155	146	100

Projections for 1965

Tract	K-5	K-6	6-8	7-9	10-12
R-1	380	428	152	144	78
R-2	139	161	68	64	29
R-3	305	346	126	118	69
S-1	390	423	104	100	57
S-2	310	341	98	92	51
S-3	405	449	137	128	81
S-4	233	253	62	64	47
S-5	208	225	53	51	57
S-6	213	231	56	54	55
T-1	1,299	1,468	520	539	286
T-2	485	550	200	207	173
T-3A	171	195	74	77	84
T-3B	351	396	138	144	120
T-4A	283	317	106	110	115
T-4B	353	393	122	127	130
T-5A	543	602	181	188	151
T-5B	378	423	136	145	145
T-6	712	793	250	235	139
T-7A	328	363	110	115	86
T-7B	783	870	273	294	249
T-8A	986	1,094	342	389	364
T-8B	372	410	117	125	86
T-9	577	646	209	223	179
T-10	295	338	131	139	126
U-1	646	720	230	215	137
U-2	541	606	200	187	112
U-3	484	541	174	164	109
U-4	586	661	229	216	132
U-5	892	1,000	331	311	191
U-6A	587	657	215	202	133
U-6B	630	704	228	214	134
V-1	355	395	122	124	91
V-2	644	736	283	308	157
V-3	265	291	80	88	65
V-4A	91	103	38	42	44
V-4B	238	261	73	80	76
V-5	394	441	145	159	163
V-6	432	483	157	172	160
W-1A	615	696	251	275	232
W-1B	521	596	234	273	315
W-2	266	298	99	108	112
W-3A	698	762	201	238	171
W-3B	85	94	28	31	34
W-4A	163	183	64	75	67
W-4B	685	758	228	264	273

Projections for 1965

Tract	K-5	K-6	6-8	7-9	10-12
W-5	695	770	237	280	311
W-6A	350	407	165	169	154
W-6B	376	436	174	179	182
W-6C	358	424	192	196	186
W-6D	625	715	261	267	197
X-1	379	415	119	158	170
X-2	492	533	133	177	188
X-3A	233	257	79	104	115
X-3B	244	268	81	107	136
X-4A	531	595	196	209	187
X-4B	442	485	130	139	153
X-5A	854	956	324	368	282
X-5B	253	283	94	107	145
X-5C	509	559	158	180	188
X-6A	546	635	280	318	378
X-6B	935	1,060	394	441	399
X-6C	463	512	150	160	130
Y-1	358	397	118	133	106
Y-2	405	444	119	135	112
Y-3A	209	225	47	53	66
Y-3B	763	840	233	263	149
Y-4	737	816	238	269	195
Y-5A	418	466	144	163	115
Y-5B	342	373	94	106	118
Y-5C	167	177	30	34	54
Z-1A	550	625	228	234	221
Z-1B	440	512	221	226	205
Z-1C	1,111	1,267	479	490	369
Z-2	1,329	1,487	485	503	451
	49,960	55,885	18,269	19,158	15,725

Projections for 1970

Tract	K-5	K-6	6-8	7-9	10-12
A-1	650	744	290	300	224
A-2	328	374	143	148	105
A-3	434	499	199	206	131
A-4	374	439	202	209	119
A-5	338	385	144	149	121
A-6	276	318	130	135	61
B-1	147	169	68	70	46
B-2	150	171	64	66	40
B-3	253	290	113	117	98
B-4	50	55	14	15	20
B-5A	151	174	73	75	61
B-5B	327	377	154	160	113
B-6	0	0	0	0	0
C-1	147	166	59	67	51
C-2	298	332	106	119	70
C-3	334	372	115	129	113
D-1	53	61	23	26	24
D-2	31	34	10	11	18
D-3	142	161	59	66	50
D-4	176	199	69	78	55
E-1	229	258	89	100	55
E-2	127	144	52	58	53
F-1	60	66	15	13	11
F-2	67	73	16	13	10
F-3	1	1	0	0	0
F-4	52	56	11	9	12
F-5	40	44	9	8	6
F-6	11	12	3	2	1
G-1	36	42	17	11	10
G-2	241	290	140	97	67
G-3	13	13	0	0	0
G-4	33	40	20	14	7
H-1	0	0	0	0	1
H-2	0	0	0	0	0
H-3	10	10	0	0	0
H-4	17	18	3	3	4
I-1	89	100	36	34	32
I-2	7	8	5	5	0
I-3	229	260	97	94	53
I-4	320	373	168	162	106

Projections for 1970

Tract	K-5	K-6	6-8	7-9	10-12
J-1	45	51	19	17	10
J-2	241	270	90	85	39
J-3	54	58	12	10	-1
J-4	168	181	40	34	-7
J-5	50	54	13	13	5
K-1	13	14	3	2	1
K-2	16	18	4	3	2
K-3	48	51	10	9	-1
K-4A	11	12	2	2	0
K-4B	78	85	20	19	5
K-5	69	74	16	13	-2
L-1	83	93	32	31	20
L-2	458	517	185	178	92
L-3	301	339	121	116	61
L-4	104	118	43	41	17
L-5	25	28	11	10	7
L-6	233	263	95	91	47
M-1	64	70	20	22	25
M-2	90	102	37	41	38
M-3	452	509	172	192	151
M-4	43	48	16	18	13
N-1	294	342	145	162	124
N-2	222	248	80	90	92
N-3	160	179	58	65	56
N-4	413	458	137	153	106
O-1	363	404	125	140	132
O-2	511	576	196	218	133
O-3	209	233	74	82	79
O-4	33	37	12	13	25
P-1A	26	30	13	14	19
P-1B	314	357	129	144	134
P-1C	117	132	47	48	35
P-2	293	329	111	115	109
P-3	511	572	187	178	101
P-4	445	498	163	155	88
P-5	637	713	234	222	126
P-6	615	689	225	214	122
Q-1	105	118	39	37	21
Q-2	310	348	116	110	62
Q-3	684	766	251	239	135
Q-4	344	385	126	120	68
Q-5	529	592	194	184	105

Projections for 1970

Tract	K-5	K-6	6-8	7-9	10-12
R-1	426	480	166	160	86
R-2	82	98	48	46	41
R-3	342	384	129	124	67
S-1	399	439	125	121	87
S-2	308	346	116	112	77
S-3	489	545	173	164	94
S-4	234	261	83	84	52
S-5	191	209	56	54	36
S-6	203	223	63	61	43
T-1	1,360	1,550	583	603	492
T-2	498	565	205	212	182
T-3A	184	204	62	64	61
T-3B	385	431	142	147	125
T-4A	306	344	116	120	92
T-4B	397	451	165	170	109
T-5A	600	686	264	273	166
T-5B	400	443	132	140	114
T-6	802	898	294	279	159
T-7A	443	494	156	161	110
T-7B	1,087	1,208	377	403	289
T-8A	1,466	1,624	497	557	431
T-8B	407	458	154	163	101
T-9	654	732	237	251	181
T-10	352	395	132	140	119
U-1	805	901	295	280	159
U-2	647	724	237	225	128
U-3	670	750	246	234	132
U-4	717	803	263	250	142
U-5	1,135	1,271	416	395	224
U-6A	805	901	295	280	159
U-6B	923	1,033	338	321	182
V-1	509	568	183	186	117
V-2	645	722	239	258	223
V-3	303	342	120	131	70
V-4A	92	103	33	36	34
V-4B	294	329	107	116	65
V-5	432	484	159	172	128
V-6	480	542	192	208	146
W-1A	802	893	281	305	252
W-1B	787	874	274	312	276
W-2	285	319	103	112	88
W-3A	904	999	294	338	248
W-3B	102	112	31	34	27
W-4A	215	233	55	63	77
W-4B	853	947	292	331	259

Projections for 1970

Tract	K-5	K-6	6-8	7-9	10-12
W-5	713	795	257	294	275
W-6A	369	417	139	142	142
W-6B	440	499	171	176	162
W-6C	400	452	150	154	178
W-6D	699	795	276	284	239
X-1	404	428	81	109	158
X-2	561	609	158	213	181
X-3A	242	264	72	97	109
X-3B	270	293	77	103	111
X-4A	571	637	200	212	163
X-4B	504	566	189	200	108
X-5A	914	1,028	359	403	366
X-5B	254	286	99	111	97
X-5C	586	655	218	244	168
X-6A	565	631	208	233	310
X-6B	872	989	366	403	423
X-6C	423	475	157	166	138
Y-1	375	425	150	165	121
Y-2	428	477	148	163	116
Y-3A	162	185	68	74	36
Y-3B	724	835	336	368	254
Y-4	845	949	313	344	254
Y-5A	454	514	181	198	159
Y-5B	373	415	128	140	90
Y-5C	144	161	50	55	22
Z-1A	656	746	276	281	221
Z-1B	427	490	191	195	208
Z-1C	1,326	1,513	570	581	480
Z-2	1,487	1,709	681	702	493
	56,630	63,645	21,536	22,425	16,574

SUMMARY OF ENROLLMENT PROJECTIONS BY AREAS

1960

Area	K-5	6-8	9-12	K-12
Charlestown	1,324	543	782	2,649
South End	1,773	799	655	3,227
East Boston - Orient Heights	3,117	1,426	1,620	6,163
North End	532	298	292	1,122
Downtown	469	265	101	835
Back Bay	437	159	123	719
Parker Hill - Fenway	1,476	497	461	2,434
Jamaica Plain - Moss Hill	2,876	1,215	1,594	5,685
Roxbury - North Dorchester	8,352	3,184	2,518	14,054
South Boston	2,886	1,110	1,581	5,577
Brighton	2,912	1,131	1,592	5,635
West Roxbury	1,763	781	908	3,452
Roslindale	2,713	998	1,548	5,259
Hyde Park	3,061	1,351	1,483	5,895
Dorchester	12,116	4,911	6,529	23,556
	45,807	18,668	21,787	86,262

SUMMARY OF ENROLLMENT PROJECTIONS BY AREAS

1965

Area	K-5	6-8	9-12	K-12
Charlestown	1,377	474	661	2,512
South End	2,079	883	691	3,653
East Boston - Orient Heights	3,314	1,321	1,545	6,180
North End	336	82	200	618
Downtown	364	244	129	737
Back Bay	417	84	51	552
Parker Hill - Fenway	1,456	356	375	2,187
Jamaica Plain - Moss Hill	3,160	1,203	1,587	5,950
Roxbury - North Dorchester	9,960	3,673	3,120	16,753
South Boston	3,045	915	1,496	5,456
Brighton	3,399	1,023	1,387	5,809
West Roxbury	1,739	808	1,035	3,582
Roslindale	2,866	977	1,649	5,492
Hyde Park	3,509	1,471	1,801	6,781
Dorchester	12,939	4,755	6,813	24,507
	49,960	18,269	22,540	90,769

SUMMARY OF ENROLLMENT PROJECTIONS BY AREAS

1970

Area	K-5	6-8	9-12	K-12
Charlestown	1,537	582	751	2,870
South End	2,506	1,057	864	4,427
East Boston - Orient Heights	3,478	1,594	1,712	6,784
North End	279	61	61	401
Downtown	348	190	95	633
Back Bay	382	87	3	472
Parker Hill - Fenway	1,402	428	395	2,225
Jamaica Plain - Moss Hill	3,636	1,350	1,646	6,632
Roxbury - North Dorchester	12,431	4,585	3,763	20,779
South Boston	3,196	1,215	1,667	6,078
Brighton	3,505	1,374	1,641	6,520
West Roxbury	1,953	754	1,016	3,723
Roslindale	3,572	1,199	1,726	6,497
Hyde Park	3,968	1,759	2,049	7,776
Dorchester	14,437	5,301	7,089	26,827
	56,630	21,536	24,478	102,644

APPENDIX C

CAPACITY COMPUTATION

Preface

The determination of how many pupils a given school building will house depends on many factors, and the final count often reflects the weighting given to some of these factors over others.

This study's computations are based on the current programs of the Boston schools as found within the buildings. Basic importance has been given to adequate space (square footage) being made available for pupils at various grade levels and for certain types of activity, and also to a teacher load ratio. This latter reflects a conviction that the effectiveness of a teacher will be diminished when he must work with excessive numbers of pupils and on the other end that his time may be utilized uneconomically under the existing program organization when confronted with less than an adequate number.

These numbers of pupils, high and low, and the space necessary for them obviously are controlled in large part by the nature of the material to be taught. It will be seen then that the capacity of a building will sometimes change appreciably when the program is modified.

1. Elementary School Buildings

Basically, an elementary school presents a simple problem. Along with general classroom space, one sometimes finds present shop facilities and sewing spaces for the older pupils, an assembly area and perhaps a separate play area. There may also be conservation of eyesight and special classes, and spaces for remedial reading and audio-visual work. The kindergarten areas are almost always differentiated from those of the higher grades. However, as the school is organized in basic classroom units, the capacity is limited by the general classroom space, for when a special facility is being used by a class, its "own" room will be empty. All those classrooms have been counted which meet space and location standards for such use, regardless of their current usage for remedial reading, speech improvement, and so forth. Any classroom located in a basement without full length windows, or one below 600 square feet, has not been included, nor have shops and homemaking rooms, whether located in basement areas or in what might otherwise be a general class space. Therefore, it is obvious that the capacity figure represents the highest pupil load for a school operating without any special programs other than those which might utilize spaces smaller than 600 square feet, except shop and homemaking. In no case has a classroom been rated at more than 30 pupils. Those which fall between 600 and 700 square feet have been considered as being able to house 25 pupils at best.

2. Intermediate School Buildings

A major consideration in intermediate schools is the fact that the usual program calls for groups of pupils to rotate from space to space. Pupils generally have more instruction of a special nature such as art, mechanical drawing, science, shop, and home economics. Because of the movement of pupils from room to room, in contrast with the self-contained classroom organization of the elementary school, spaces such as gymnasia and shops and other basement or ground floor areas have been included in the computations. It is considered that no more than 25 pupils should use a general classroom of less than 750 square feet; no more than 24 should use an art room or science facility of less than 900 square feet; that each gym class of 30 needs an area of at least 3,000 square feet; and at this level of instruction, shop and home economics classes of 24 can be scheduled in a minimum of 800 square feet. The necessity of successive usage of space by different groups leads to an adjustment downward by including a utilization factor of 90% generally and 80% for shop and home economics spaces which are used less intensively.

3. Senior High Schools

Although basically the same system as in intermediate schools was used, several new factors had to be included. Not only is there a greater variety of programs and special types of instruction available, but pupils are allowed to elect courses which lead to a constantly shifting composition of groups and classes of varying size. Utilization factors were adjusted downwards to compensate for this: to 85% for general purpose classrooms, to 80% for most types of specialized rooms, and to 70% for chemistry and physics laboratories.

In addition, in the senior high school system there are certain programs which are based on different scheduling principles and present a different type of problem. Essentially, these are contained in the trade schools and the various cooperative industrial programs.

A. A Boston Trade High School

The following method has been used to determine the capacity of Boston Trade School:

(1) Since the state of Massachusetts pays 50% of the operating cost of a vocational program, they exercise strict control over the size of each vocational class. Consequently state minimum area and maximum teacher loads have been used (see Table 1).

(2) A shop that conforms to the state minimum shop area requirements has been given the state maximum teacher load for that particular type of shop.

(3) Related classrooms have not been considered in the capacity formula, since they are an integral part of the shop classroom. When the related classroom is in use, the shop is out of use.

(4) The utilization factor for each shop is figured at 100% for the following reasons:

(a) The vocational program in all schools is scheduled in such a way that the same student group takes shop for the full school week, each hour of the school day.

(b) At the end of the week, the first group then vacates the shop for a full week of academic and possibly some related shop courses, while a different group spends a full week in the identical shop.

(c) Shop teachers do not have planning periods. They are in the shop with students the entire school day. Planning is done before and after school.

(5) Shop areas that are double or triple the size stipulated by the state have been rated double or triple the maximum teacher load.

(6) Capacities for shop areas that are not double or triple minimum areas but are larger than the minimum requirements, have been determined on a basis of one additional pupil for each increment of square footage required by the state.

(7) Capacities for shop areas that are smaller than the state requirements have been determined by subtracting one pupil for each increment of square footage that the shop has less than the state requirements.

(8) If the total square footage is plus or minus 10% or less, capacity figures have not been revised from the normal shop size since even the newer trade schools do not exactly meet the specifications in all space requirements, yet receive full reimbursement.

(9) Since the major constraint upon capacity is the number of pupils that can be accommodated in the shops, the shop capacity for one week has been calculated, then doubled, to give the actual capacity.

The total capacity of the main school building using these standards is 1,140, and that of the annex 190.

B. Trade School for Girls

By application of general standards for programs discussed with state officials in charge of these, a figure of 250 is justified for this building and its small, cut-up spaces.

C. Cooperative Industrial Areas

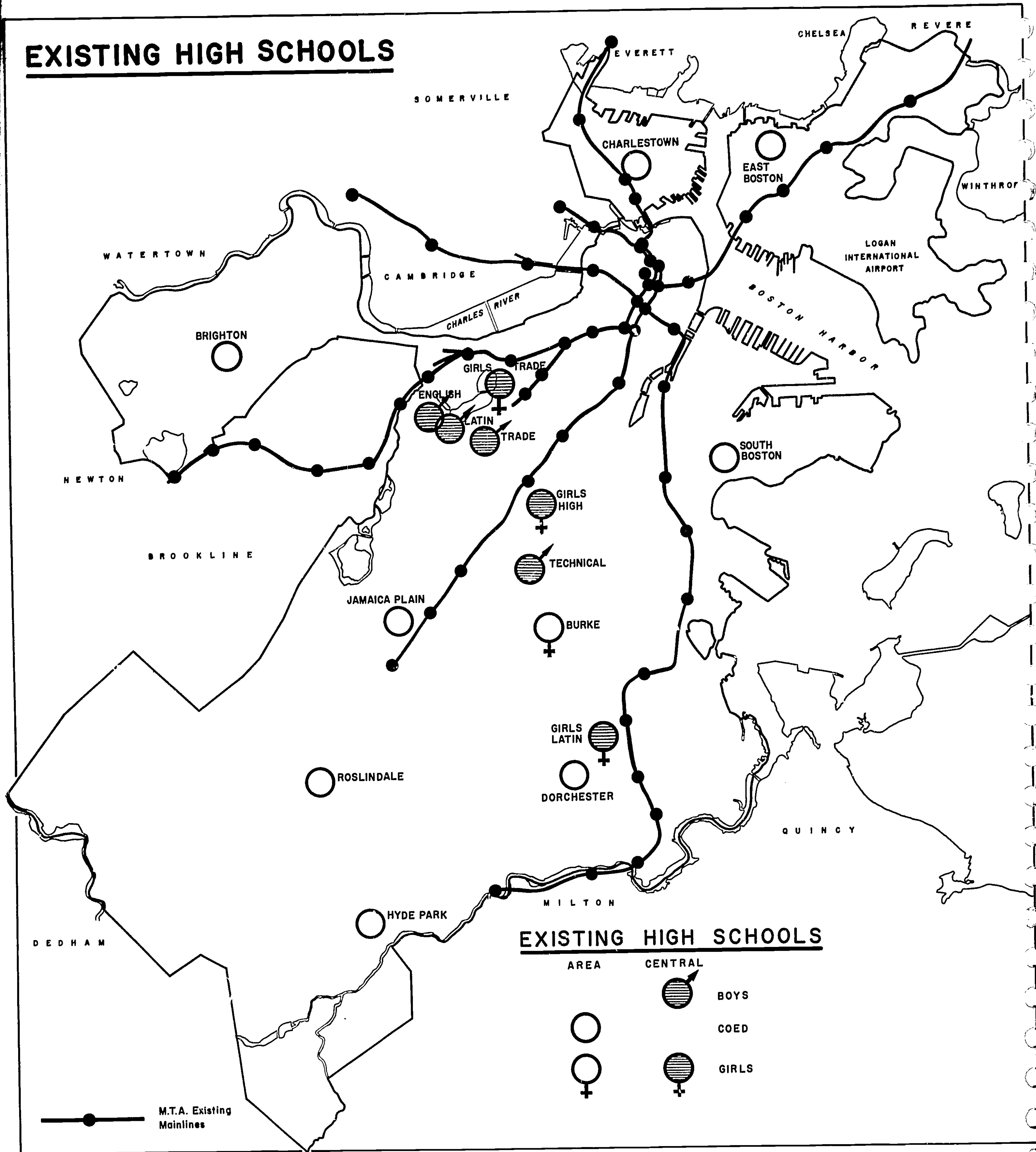
The capacities of these areas within several high school ildings have been computed with the same state standards used in Bos- n Trade School for the same reasons. No differentiation, however, s been made of the general academic classrooms used by the pupils in ese programs from those used by other programs in the building. The gures for the cooperative shops have been added to those obtained r the other areas to obtain the rated capacity of the High School. addition has been made for students who may be enrolled in the pro- am but actually spend all time outside of the building on a job.

D. Boston Technical High School

This school building houses three types of programs. e is the cooperative printing program which has been computed as ove. The other two are the technical and the college preparatory. th of these include a much greater proportion of shop work than uld the typical program in the other high schools. There are, reover, certain differences in the schedules of the two programs ere. Considering these factors, the utilization factor for shop aces has been raised to 90% as against the 80% in the other high hools. One other difference in this school is that mechanical draw- ng is a very important portion of the curriculum and its spaces are ite large. Hence, the basic pupil load of these rooms has been com- uted at 30.

TABLE 1

Shops	Maximum Teacher Load	Area Per Pupil (Square Feet)	Minimum Shop Area
Auto Repair	16	200	3,200
Auto Body	16	175	2,800
Baking	20	125	2,500
Boat Building (wooden)	20	200	4,000
Cabinetmaking	20	200	4,000
Carpentry (mill & house)	18	200	3,600
Commercial Art (Industrial Design)	20	75	1,500
Drafting	20	75	1,500
Electronics (Basic)	20	100	2,000
Electrical	20	100	2,000
Machine	20	125	2,500
Metal Fabrication	18	150	2,700
Painting and Decorating	20	100	2,000
Patternmaking	20	150	3,000
Plumbing	20	125	2,500
Printing	20	150	3,000
Radio and Television	20	100	2,000
Sheet Metal	20	125	2,500
Upholstery	20	100	2,000
Welding	18	100	2,000
Related Classrooms		750 sq. ft.	
Academic		900 sq. ft.	


EXISTING HIGH SCHOOLS
EVERETT
CHELSEA
REVERE
SOMERVILLE
CHARLESTOWN
EAST BOSTON
WINTHROP
WATERTOWN
CAMBRIDGE
LOGAN INTERNATIONAL AIRPORT
CHARLES RIVER
BOSTON HARBOR
BRIGHTON
GIRLS TRADE
ENGLISH
LATIN
TRADE
NEWTON
SOUTH BOSTON
GIRLS HIGH
BROOKLINE
TECHNICAL
JAMAICA PLAIN
BURKE
GIRLS LATIN
ROSLINDALE
DORCHESTER
QUINCY
MILTON
HYDE PARK
DEDHAM
EXISTING HIGH SCHOOLS
AREA
CENTRAL
BOYS
COED
GIRLS
M.T.A. Existing Mainlines

A P P E N D I X   D

BOSTON HIGH SCHOOLS

Schools	Capacity	1960 Enrol.*	1961 Enrol.*	1961 Excess Capacity (+)
Area Schools				
Brighton (Auto Mech. Co-op)	1,400	1,166	1,128	+272
Charlestown & Annex (Elect. Co-op)	580	718	744	-164
Dorchester (Uphol. & Cabinet Mkg. Co-op)	1,020	1,051	1,044	- 24
East Boston (Machine Shop Co-op)	1,590	970	1,109	+481
Hyde Park (Machine Shop Co-op)	1,430	1,236	1,320	+110
Jamaica Plain (Agriculture Co-op)	840	822	777	+ 63
J. E. Burke	1,200	1,632	1,507	-307
Roslindale	1,160	1,149	1,292	-132
South Boston (Auto Body & Sheet Metal Co-op)	1,250	1,312	1,411	-161
City-Wide Schools				
Boston Latin	2,230	2,589	2,600	-370
Girls' Latin	1,250	1,531	1,529	-279
Boston Technical (Printing Co-op)	2,010	1,501	1,517	+493
English	1,300	1,564	1,616	-316
Annex (T. Roosevelt)	-	373	411	
Girls' High	900	774	744	+156
Boston Trade	1,140	1,022	1,049	+ 91
Annex (H. L. Pierce)	190	177	160	+ 30
Trade High for Girls	250	282	331	- 81
Totals	19,740	19,869	20,289	
Business Education (Post Graduate)	745	432	476	+269

*September 30

SUMMARIES OF HIGH SCHOOLS TO BE ABANDONED

Trade High School for Girls
(9-12 and Post Graduate)

Built in 1904; $5\frac{1}{2}$ stories; Type I; granite and gray brick exterior. Beautician, dressmaking, catering, practical nursing, and commercial art shop areas of several small spaces each; 4 academic classrooms.

Capacity: 250

This beautiful old town house is located on the corner of the Fenway and Westland Avenue, facing on Hemenway, a busy location with much commercial and other traffic. There is no site except that on which the building sits, although there is an adjacent strip of shrubbery and grass belonging to the Metropolitan District Commission. The structure is in good condition except for some leakage of the roof, which has recently been patched and reflashed. It has been well maintained over the years, bricks replaced where needed, and only minor chipping near the top of the building and some pointing around the granite blocks now need repair. Exterior wooden trim does need paint, however. Interior walls are also in excellent condition except where water damage has occurred on the top floor.

Marble floors (porous and hard to clean), stained glass windows, graceful winding staircases, an old pipe organ, expensively constructed woodwork and paneling, and other adjuncts of its former use lend this building an attractive and gracious atmosphere.

However, it was never meant to be a school and is not well adapted for such use.

Vast amounts of wasted space exist; the top floor is almost unused. Five custodians are on the staff to maintain this building for a very limited enrollment, including the adult programs. Even these small numbers are over-crowded in the small, cut-up instructional spaces (former bedrooms, dressing rooms, and parlors) because of the necessary equipment and the awkward shapes of these areas. The layout of the floors is confusing and hazardous. Artificial lighting is substandard, especially in the academic classrooms. There is no artificial ventilating system and the coal heating system is hand-fired. The tubes in one boiler need repair and the protective covers are crumbling.

Although the entire school has been outfitted with a sprinkler system, many firedoors to stairwells are of wood. Fire escapes lead to a thick, overgrown shrubbery on the MDC property.

Facilities for modern educational programs are lacking. The unattractive auditorium is located in the basement and shares a space with an excuse for a gymnasium - a minute area with low ceilings, no ventilation, no showers, and no lockers. Egress from this area is difficult, leading by wooden service steps up to Hemenway Street. (This is the normal entrance to the school in the mornings.) The top floor library is almost unused. Being so isolated, and so few in number, high school pupils here have little opportunity to take part in extracurricular activities which are part of other high school programs.

The programs housed here should be moved to a building more structurally, economically, and educationally adapted for them and this valuable building sold. It would be better utilized for offices, apartments, or a dormitory for some nearby institution.

Boston Trade High School

Built in 1917; additions in 1926, 1939; new gymasium and cafeteria 1958; $3\frac{1}{2}$ stories; Type I; red brick exterior, cement trim; airplane, auto, plumbing, sheet metal, welding, paint, printing, machine, 2 electric, carpentry and cabinet making shops, mill rooms, drafting rooms, auditorium, library; 17 classrooms @ 770 sq. ft.

Capacity: 1,140

This building has had an immense amount of wear and tear imposed on it during its years of service. The interior of the original block especially, which is used for the academic classrooms, is in abysmal condition and has suffered much from vandalism. Surrounded by housing projects and severely limited in site, the building has also been subjected to abuse on the outside. The 1958 addition of the gymnasium and cafeteria was made necessary when the form er spaces in the basement of the 1917 block were inundated by the flooding of Stony Brook and subsequently condemned. It is the only portion in good condition structurally. Elsewhere, most brickwork needs repointing, cement lintels and sills are crumbling away around the windows, and numerous cracks in the brickwork exist. Doors and windows are quite loose in their frames and need caulking between frames and masonry. Windows are broken, much putty has long ago fallen away and paint has been needed for years. Wooden sills are rotting. Structural cracks extend to the foundations and there is evidence of current leaks and seepage in the basement. Interior walls are also cracked and leaking. Some attention has been given to plastering ceiling cracks by students in their class projects. Stairs are quite worn in the main building. Wooden floors of the main building and the north wing have swelled and buckled and in places split. All wooden flooring has been and is being heavily oiled. Additional fire hazards result from storage of paint in that shop. There are no sprinklers. The gas pump in the auto shop cannot be used because the tank leaks.

In the classrooms conditions are worse. In addition to the cracked, leaking ceilings, cracked walls covered in dark, drab, old paint and broken, rattling windows, desks and equipment are broken and abused, backs torn off chairs and thermostats ripped out of walls. Former science rooms have had what equipment remains rendered inoperative. Lighting is far below modern standards and storage space practically non-existent.

While sanitary facilities in the wings are fairly good and even excellent in the new section, those in the cellar of the main building are not at all acceptable. Porous floors are difficult to keep clean anywhere, but especially so when located in a dank, wet atmosphere. Many fixtures are old slate troughs.

Although the wings containing the shops are not in quite such a hopeless condition as is the main building, they offer mostly crowded and inflexible space, not up to modern standards for the programs.

Handicaps inherent in such a plant unnecessarily restrict the value of the Trade School program to its pupils. While the new cafeteria and gymnasium are undeniably sound, attractive and valuable, as is the boiler room end of the heating plant with its newly converted oil burners, it would be best to abandon the remaining structures and construct a modern facility rather than sink any funds into attempts to improve them. The valuable portions are easily salvageable and offer distinct possibilities of advantageous disposal to other users.

Henry L. Pierce (Boston Trade High School Annex)

Built in 1891; 2 1/2 stories and attic; Type IV; buff brick exterior. Bakery shops in basement; 2 packing rooms @ 800 sq. ft. on 1st floor; radio and TV repair shops on 2nd floor; 5 classrooms @ 800 sq. ft.

Capacity: 190

Located in the Codman Square section of Dorchester some five miles from the main Trade School building, this structure has the obvious disadvantages of such an annex: it severely limits the participation of its occupants in any school-wide activities. For example, boys must be transported or allowed to use their own cars in order to make use of the new gymnasium at the main building.

Structurally, the building leaves much to be desired. Vast amounts of wood are used in framing and interior finish, even to ceilings of corridors. Staircases are of steel. Although newly painted, window sash are loose and rattle in their frames, increasing the difficulties of heating. The boiler is fed with coal by hand, and the thermostats in the rooms have been vandalized so that heat control is troublesome. The wooden floors of classrooms and corridors and the linoleum on stair landings are quite worn. Plaster classroom ceilings are cracked and show signs of leakage; several have had to be reinforced by metal plates. Walls have also cracked and leak. While toilet facilities have been modernized, drinking fountains are largely in old slate sinks.

Lighting is equally out-of-date and below present standards. While this building has been converted to its present use rather effectively, it was not designed for it and much waste space therefore exists. The unfinished attic should no longer be used as a place for storage or as an area frequented by students.

There are no special educational facilities available; indeed, the old auditorium has been utilized for part of the radio-television shops. The cafeteria is just another former classroom and no hot lunch is provided. It would be difficult to make these portions of a modern high school program available for such a limited enrollment using this building. The trade programs in H. L. Pierce should be consolidated with the others of the main building as soon as it is feasible and the building abandoned for school purposes.

School of Business Education
(Post Graduate)

Built in 1891, 1912 addition; 3 1/2 stories; Type IV
17 general purpose classrooms (13 @ 830 sq. ft. plus; 4 @ 620 sq. ft.); 1 business machine room; 7 typing rooms; 1 home economics (evening school) room; 1 study; and 1 lecture hall. 1 eyesight clinic and office for this program.

Capacity: 740

This building presently houses less than 500 postgraduate students. The size of the plant, its awkward and sometimes confusing floor plans, its third floor auditorium, and much structural wood do not meet standards of contemporary fire-safety design. Although the addition has steel stairways, the older building has wooden ones.

The physical condition of the school suggests that it is in a state of rapid decline and ever-mounting repair and maintenance costs. The exterior masonry is deteriorated; window sash are rotting and need paint; the foundation, walls, and roof leak; the interior walls and ceilings are cracked, deteriorating, and plaster is separating from the lath; interior painting is needed; floors are badly worn and buckling; toilets are obsolete.

It is recommended that this building be abandoned and its services provided in another facility.

APPENDIX E

TABLE 1

SPENDING AND FEDERAL RENEWAL CREDIT SCHOOL DESIGN, CONSTRUCTION, AND EQUIPMENT 1962-1975 (IN THOUSANDS)

Year	Total Creditable	Total Non-Creditable	High School Creditable*	Elementary & Sec. Schools Creditable	Federal Credit Earned
1962	80	120	80	- - -	160
1963	3,690	3,170	800	2,890	7,380
1964	9,340	6,760	1,300	8,040	18,680
1965	9,745	6,220	1,720	8,025	19,490
1966	7,575	6,010	1,680	5,895	15,150
1967	6,190	3,980	1,880	4,310	12,380
1968	5,870	2,970	880	4,990	11,740
1969	3,160	3,050	800	2,360	6,320
1970	2,850	3,650	400	2,450	5,700
1971	1,600	2,200		1,600	3,200
1972	1,350	1,450		1,350	2,700
1973	1,700	250		1,700	3,400
1974	600	850		600	1,200
1975	400	1,800		400	800
Totals	54,150	42,480	9,540	44,610	108,300

*High school urban renewal credit computed at 40% of the total construction cost.

TABLE 2

CITY OF BOSTON NET SHARE OF THE COST OF CONSTRUCTION[1]
(IN THOUSANDS OF DOLLARS)

Year	Total Expenditure[2]	State Contribution Schl.Bldg. Aid	State Contribution U. R. Grant[3]	Total State Share	Net City Share
1962	200	60	40	100	100
1963	6,860	2,058	1,845	3,903	2,957
1964	16,100	4,830	4,670	9,500	6,600
1965	15,965	4,789	4,873	9,662	6,303
1966	13,585	4,075	3,787	7,862	5,723
1967	10,170	3,051	3,095	6,146	4,024
1968	8,840	2,652	2,935	5,587	3,253
1969	6,210	1,863	1,580	3,443	2,767
1970	6,500	1,950	1,425	3,375	3,125
1971	3,800	1,140	800	1,940	1,860
1972	2,800	840	675	1,515	1,285
1973	1,950	585	850	1,435	515
1974	1,450	435	300	735	715
1975	2,200	660	200	860	1,340
Totals	96,630	28,988	27,075	56,063	40,567

1. This table indicates the ultimate construction cost to the state and the city; the actual payments of state aid are received over 20 years beginning the year after the construction expenditure has been made.
2. Total expenditure is the estimated annual dollar payout for design, construction, and equipment each year.
3. See column 1 of Table 1, Appendix E (50%).

TABLE 3

CALCULATION OF OUTSTANDING DEBT
(IN THOUSANDS OF DOLLARS)

Year	Annual Debt Added	Cumulative Debt	Annual Debt Retired	Cumulative Debt Retired	Net Outstanding Debt End of Year
1962	200	200	- - -	- - -	200
1963	6,860	7,060	10	10	7,050
1964	16,100	23,160	353	363	22,797
1965	15,965	39,125	1,158	1,521	37,604
1966	13,585	52,710	1,956	3,477	49,233
1967	10,170	62,880	2,635	6,112	56,768
1968	8,840	71,720	3,144	9,256	62,464
1969	6,210	77,930	3,586	12,842	65,088
1970	6,500	84,430	3,896	16,738	67,692
1971	3,800	88,230	4,221	20,959	67,271
1972	2,800	91,030	4,411	25,370	65,660
1973	1,950	92,980	4,551	29,921	63,059
1974	1,450	94,430	4,648	34,569	59,861
1975	2,200	96,630	4,721	39,290	57,340
1976	- - -	96,630	4,831	44,121	52,509
1977	- - -	96,630	4,831	48,952	47,678

TABLE 4

CALCULATION OF DEBT SERVICE
(IN THOUSANDS OF DOLLARS)

Year	Outstanding Debt Beginning of Year	Principal Paid[1]	Interest[2]	Gross Debt Service
1962	- - -	- - -	- - -	- - -
1963	200	10	7	17
1964	7,050	353	240	593
1965	22,797	1,158	775	1,933
1966	37,604	1,956	1,279	3,235
1967	49,233	2,635	1,674	4,309
1968	56,768	3,149	1,930	5,079
1969	62,464	3,586	2,124	5,710
1970	65,088	3,896	2,213	6,109
1971	67,692	4,221	2,302	6,523
1972	67,271	4,411	2,287	6,698
1973	65,660	4,551	2,232	6,783
1974	63,059	4,648	2,144	6,792
1975	59,861	4,721	2,035	6,756
1976	57,340	4,831	1,950	6,781
1977	52,509	4,831	1,783	6,614

1. Principal Paid = Annual Debt Retired from Table 3, Appendix E.
2. Computed at 3.4%